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ABSTRACT

This Institute was held to provide inservice training for teachers, administrators, and teacher educators in Nova Scotia. The papers presented by the seven consultants are 1) "An Overview of the Nongraded School," and "The Curriculum of the Nongraded High School," by B. Frank Brown; 2) "Social Studies in the Nongraded School," by Maurice Recchia; 3) "The New Social Studies and the Nongraded School," by Joseph Eulie; 4) "Organizing the Nongraded Primary School," by Bernarda Bockrath; 5) "The Curriculum of the Nongraded School," by Robert Anderson; 6) "Organizing the Nongraded Elementary School," by William Graves; and 7) "Concepts and Definitions of Nongrading," by Maurice Hillson. There is also the transcript of a panel discussion on the pros and cons of nongrading, and an extensive bibliography. (MBM)

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AN OVERVIEW OF THE NONGRADED SCHOOL

DELIBERATIONS OF THE ST. FRANCIS XAVIER INSTITUTE ON THE NONGRADED SCHOOL

edited by

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Preface

This volume contains the deliberations of the first annual St. Francis Xavier Institute on the Nongraded School, which extended from Sept. 3 to Sept. 5, 1969. The consultants present for this event included some of America's finest experts on nongrading: Dr. Robert Anderson, Sister Bernarda Bockrath, Dr. B. Frank Brown, Dr. Joseph Eulie, Dr. William Graves, Dr. Maurie Hillson, and Professor Maurice Recchia. This Institute was held to provide top-flight in-service training for teachers, administrators, and teacher educators in the province of Nova Scotia. It came about in response to the large number of demands made upon the Education Department of the University to provide in-service training on continuous progress. These demands made it clearly evident that a very significant number of teachers in our province were giving serious consideration to implementing at least some of the concepts of nongradedness.

The demands made by these teachers may in turn have been a reflection of the advanced educational thinking evident in recent policy statements emitting from Nova Scotia's Minister of Education, Honorable Gerald Doucet. The direction education is to take in this province is made abundantly clear in the following statement made by the Minister at the official opening of the Institute:

> As you know, the promotion policies that we announced last year were aimed at challenging you as our teachers to create improved opportunities for educating our people. These promotion policies were aimed at trying to deal effectively with the realities of individual differences and our growing knowledge of different styles of learning and how our students apply this learning. These policies were aimed at putting a tiger in the tank of the comprehensive system of education. And to you as the drivers of the new vehicle have been entrusted the responsibility of making it go. Indeed, I hope that you make it purr.
>
> If we really believe that learning is continuous, if we believe that instruction should be adapted to the different needs of each student, then it seems to some of us that we must translate these beliefs into effective classroom procedures. The resulting evolving patterns of instruction will

translate themselves into continuous individual progress. The name or names which we apply to the process will become of real secondary importance, as long as we provide instruction which inspires individual students to proceed at their own rates of learning. The point I want to make this morning is that the process which you are here to explore in the next three days must not become an end in itself but, rather, a means to an end. The end is a student-centered system of education, a student-centered school.

Honorable Mr. Doucet and his Department of Education are to be commended for the quality of the vision and direction that this statement indicates. However, it is one thing to make a policy statement; it is quite another to translate it into action. Our real concern now is whether or not the Department's policy statements will be followed by a re-alignment of its Foundation Program to make implementation financially realistic. If this change is made, it will be clearly the responsibility of the teaching profession to rise to the challenge of implementing this policy. Because of the involvement of our University in the pre-service and in-service education of teachers, we believe that we have a very special responsibility to provide leadership and guidance in the process of implementation. Thus it was out of our sense of obligation to the teaching profession that we held the first Institute on Nongrading to provide an overview of continuous progress. The needs of the future lie clearly in the area of providing assistance with various aspects of implementation. Hence, implementation will be the theme of future conferences.

As an immediate follow-up to the first Institute, St. Francis Xavier University offered a week-end course on Nongrading to elementary and secondary teachers and administrators. This course was offered on an individualized basis. The following course outline will indicate the sophistication of the work being done in the area of implementation by the participants.

OBJECTIVES

1. To develop an understanding in depth of the various aspects of nongradedness required to engage in the process of implementation.
2. To delineate those aspects of current nongraded plans that may be adapted to local conditions.

3. To develop a detailed plan for implementing nongrading in a particular local situation either at the administrative level or in curriculum and instruction in a particular discipline.

COURSE DESCRIPTION

This course on nongrading will be offered on a consultative basis and will be individualized to accommodate the particular needs and interests of those participating. Books and materials will be recommended for purchase and will also be made available from a library on nongrading which will be developed specifically for those taking the course. This course will consist chiefly of individualized reading and study and the development of a plan for implementing nongradedness suitable to the peculiar situation of each person taking the course. From time to time the candidates will be required to consult with the co-ordinators of the course to evaluate their progress and to obtain help where needed. Evaluation will be based on the quality of the work submitted and on the candidate's ability to assess and defend what he is doing. All work submitted should reflect knowledge of sound procedures in developing administrative plans and re-aligning curriculum and instruction. To be more specific, the course may be divided into a number of phases:

Phase I

In order to obtain needed background information on the theory and practice of nongrading, all candidates for the course will be required to attend all the sessions at the Saint Francis Xavier Institute on Nongrading.

Phase II

On the first Saturday of week-end classes, all candidates for the course should assemble to present to the co-ordinators of the course a submission or proposal for implementation on which they intend to work. Each candidate's proposal should be relevant to his own situation, not a hypothetical one, and should reflect adequate background reading and insight into the basic concepts developed during the institute.

Phase III

At this stage a candidate should prepare or outline a step-by-step procedure for implementation. A detailed plan for implemen-

tation should be accompanied by a bibliography of background information. Consultation with the co-ordinators will be necessary in order to refine this procedure and to assess the soundness of the proposed course of action. The time for this assessment will be determined through consultation with the candidates taking the course.

Phase IV

A series of progress reports will be required from January through March to enable each candidate to refine his detailed plan for implementation.

Phase V

The course will end with a final report which will involve the submission of the completed plan and a defence of the procedure which will be used for implementation in the following year.

A publication of the reports prepared by this class will be available at the St. Francis Xavier Institute on the Nongraded School to be held in the fall of 1970.

Francis J. Kuzsman

Teresa MacIsaac

1 AN OVERVIEW OF NONGRADING

Dr. B. Frank Brown

It is kind of fun to pontificate and while I don't expect you to agree with the things I say here today, I do hope to provoke a mood which will result in each of you developing some new thoughts of your own on the subject of change in the educational establishment. But first, let me present my credentials. As far as the educational establishment is concerned I belong to a guerrilla outfit—I might add that through guerrilla attacks on the conventional school I have become an experienced public school infighter.

Many teachers seem to be unaware of either the magnitude or the acceleration of the extravagant changes which are taking place in society. I know this sounds like a devastating indictment of our profession. But I think you will agree with me that all too often when school people are confronted with awesome imponderables, they have a distressing tendency to bury their heads in the sand. What is most needed in education today is an eyeball-to-eyeball confrontation with change. And may I add that we can't bring about change by tiptoeing around at regional and state meetings.

It has now been over 12 years since the Russians slammed the first man-made hardware into orbit around the earth. This momentous event created a climate for educational change. Then, less than a year after the launching of Russia's Sputnik, the United States punched its first hole in space. This successful space spectacular further accelerated an international disposition to innovation. Accomplishments in space technology are no longer measured by the frequency with which hardware is hurled into space. The new gauge, which until recently was the increasing capacity for hurtling men into orbit, is now the ability to walk on the moon. These feats have contributed greatly towards the fostering of an international mood disposed to embrace heretical notions.

The most vibrant of the cultural innovations with which education should be concerned is the new process of cybernation. Cybernetics, the emerging titan of technology, is creating a multidimensional culture in which hopes and aspirations which were misty and unattainable in the past are no further away than the push of a button. Cybernation has also actuated a new industrial revolution. This upheaval has wrought so many changes and dislocations in the

labor market that it is now impossible for the economy to provide everyone with jobs. Full employment has recently become permanently unattainable. In the near future full employment is very likely to become an outmoded economic objective in what can only be described as a workless society. The old notion of work which signifies toil seems destined to become an artifact.

What are the implications for education, now that the driving technology of cybernetics has created an intelligence in machines which is equivalent to the high school diploma? The consequence is that many students who are presently in high school will not be needed for work. In the sophisticated society in which they will live as few as 20% of the population may be able to produce all of the goods and services needed by the nation.

In preparation for this era our social institutions must soon begin to re-examine the old idea that work is good and things are at their best when everyone has plenty of it. The only alternative may be to reverse the work ethic and develop new rules of economy based upon the notion that work is bad and man should be freed from its drudgery.

In the light of these exciting developments it has become evident that education is suffering from an enormous malaise. It is also clear that only parents and school leaders working together are entrepreneural enough to break up the system. We used to romanticize about how new ideas and innovations originate in the classroom and kind of flow upward through the administrative hierarchy. This is educational nonsense. Only school leaders backed by parents can master the support needed to bring about innovation and change.

What new alignments must be made in the educational enterprise to gear it to the demands of cybernated society? First, we must stop educating for a sagging culture and begin thinking about what education will be like in a leisured society. As we attempt to grapple with the leisure problem, we must admit that cybernetics has us thoroughly confused at this point and it will be a long time before we feel our way through to clarity.

One distinct advantage of the burgeoning new society is that it will permit mankind to develop its most powerful and valuable asset, the human mind. In this setting, education must be regarded as the greatest of all adventures. Many new searches will be made

possible and education will become so innovative that one exciting search will lead to another.

What will the organization for education be like in a leisured society? The monolithic structure of the graded school will be no more. The old rigidity of the graded organization with the Procrustean solutions must be replaced by a new highly flexible arrangement. We must be able to come out with individuals who are readily adjustable or else our society will be too rigid to deal with the future. The graded organization with its inflexible and unyielding conventions is hardly relevant to the new age. For example, it has been estimated that students now in school will have to be retrained three times as the result of automation and cybernetics. **The individual of the future must be able to adapt and re-adapt.**

The graded school was developed in 1537 as a solution to the grouping problems of the 16th century. It has cursed the world ever since.

In talking about the nongraded school I would like the rules to be clear. I am not a nongraded school theoretician. I am what is known as a practicing fanatic.

But first—let me cite chapter and verse as to what is wrong with the graded school. The graded school is frozen to a dangerously dated posture. Its monolithic structure is rigged against good learning. The curriculum of the graded school is designed to meet group demands and it does this with Procrustean solutions. As often as not the effect of the graded school is to bring uncommitted learners into contact with an incompatible curriculum. Graded schools are still flunking 25% of the students and blaming the students for their failure. The graded school has become extremely moderate when it should be moderately extreme.

Whitehead once remarked that a merely well informed man is the worst bore on earth, yet, in the curriculum of the graded schools we treat youngsters as if they were an input and retrieval system. The graded school curriculum is, at best, a disorderly network of learning. It is a bureaucracy for children.

I end with a bit of whimper here as the whole matter of breaking down education by age groups is kind of a crazy minuet.

I need not recite the entire litany here. Suffice it to say that it is time we stopped chain smoking ourselves to death with chronological age grouping.

The big problem is that the school organization has never been properly engineered. The nongraded school which developed out of opposition to the grade is evolving into a new system of flexible placement in which students are placed in more appropriate learning situations.

Actually, the best colleges in the country are nothing more than ungraded schools. For instance, over a hundred students enter Harvard each year as sophomores as a result of having taken college level work in the secondary school and having earned satisfactory marks on the advanced placement examinations of the College Board.

Last fall Amherst College granted Advanced Placement in the area of Foreign Languages to nearly half of its freshman class. Of the entire 300 members of the freshman class 88 students received Advanced Placement in mathematics, and 57 in physics and chemistry.

The new nongraded model then is nothing more than a hitchhike upon the Advanced Placement Program of the College Entrance Examination Board which gives advanced standing and placement to the more able college freshmen. When applied to the high school curriculum Advanced Placement becomes Appropriate Placement. In effect, **the new organization of the school which began as a nongraded school has moved into the more sophisticated stage of flexible and appropriate placement. It is headed toward the even more utopian interval of Situational Placement.**

Appropriate Placement is a serious effort to do something about the evasive problem of individual differences. The principles of the Appropriate Placement Plan are:

(1) All students are placed in courses on the basis of achievement in a particular subject.

(2) Convenient arrangements for mobility are built into the curriculum.

Appropriate Placement is based upon the viable notion that **there is nothing so unequal as the equal treatment of unequals.** So, here, at last, we have the miracle of unequal students doing unequal things.

Once the school becomes nongraded **it becomes apparent that the conventional curriculum is not adequate.** In the nongraded

school the **curriculum of every student is linked to his personal achievement rather than his chronological age.** The result is a new nongraded curriculum that is built upon the achievement of the students which the school serves.

The defense of nations today is based upon a weapons mix meaning some bombers and some missiles. New ideas about the curriculum should revolve around a curriculum mix. The curriculum mix implies a variegated curriculum with one program for big league players and another for the sand-lot crowd. One program for the more seriously motivated—another for the uncommitted learner. My only concern is whether we have the imagination to write the specifications for a curriculum mix.

THE CHANGING ROLE OF THE TEACHER

When the school is reorganized to keep pace with our external environment the role of the teacher must be greatly changed. Our present conception of the teacher's function is described in 18th century poetry which says about the schoolmaster:

"And still they gazed
And still their wonder grew
That one small head
Could carry all he knew."

No longer can one small head carry all that a student must learn. We must do something drastic to better enable us to handle the staggering buildup of new knowledge. With knowledge being doubled every decade, we must abandon the fruitless task of trying to cover facts and shift the emphasis to the development of traits of curiosity, intellectual inquiry and intuitive thinking.

I realize that when we speak of discarding the teaching of facts we are talking about something which is just a cut above football, mother and the United States Marines and that this methodology is counted by many people as among the first ten American blessings. I cringe when I think of some of the facts which I taught as an elementary school teacher. I blush to admit that I even taught children to memorize the major products of Louisiana. Research indicates that students forget most of the facts that we teach them. In the past, our subject matter has dealt only with candidly honest subjects. We must now reckon also with approximations and we must face the stark fact that the techniques of instruction in graded

schools reflect an appalling lack of creativity. The dogmas of the quiet past are inadequate for the stormy present.

The best definition of the teacher as he should function in the nongraded school is found in the dialogues of Socrates where the teacher's function is compared to that of the midwife. **The teacher's job, then, changes from one of imparting knowledge to one in which he delivers learning. The role of the teacher shifts from a dispenser of knowledge to a remover of road blocks. The teacher moves to the sidelines and becomes a catalyst.** The era calls for ground swell support of the notion that schools are made for learning—not teaching. **We must move then from the shibboleth of memorized learning towards intellectual inquiry.**

Shifting the burden of learning to the student does not de-emphasize the role of the teacher. It does, however, make the teacher's role more subtle and more complex. One thing the teacher must surely do is alter his techniques for presenting materials. He must give up his role as a lecturer and source of encyclopedic information. **His new role is that of seminar leader and project director. Instead of providing answers, he directs the learners to experiment, discuss and evaluate his findings. Teacher student contact becomes more informal and is based upon the needs of the individual.** An informed and cooperative teacher student relationship is established. The highly gifted need less help, the very slow much more help than they have been given in the past.

In the graded school scheduling has been an administrative function. **In the nongraded school both scheduling and progress are put into the hands of the student and teacher where they belong.**

HEURISTIC LEARNING

Not nearly enough has been written or said about **the lost art of learning through discovery.** The Greeks knew this approach to learning well. They referred to it as heuris (kein), meaning, **to find and observe. The modern term heuristics refers to "discovery learning."**

The new curricula which are being developed by the world's most able scholars are based upon the major principles of the subject—the great themes which tie the discipline together.

School curricula then, is being rearranged so that the emphasis is on the "structure" of knowledge rather than the "details". By

"structure" **I mean the broad unifying principles which hold the subject together.** With this type of material **the approach to learning becomes a problem solving or conceptual rather than a fact centered approach.** The intent is to have students learn through discovery. New components built into a curriculum, centered around the major principles of a discipline, are bringing about a radical change in the role which the teacher plays in the learning process. The teacher becomes a kind of devil's advocate, needling students to search and discover for themselves.

The prerequisites for learning through discovery are possessed by students in varying degrees. The components of this type of learning are an insatiable curiosity and a determination to express oneself as an individual. In heuristic learning, the role of the teacher changes as he becomes the catalyst in the learning process. His function is to excite students to the point where they will seek to discover and learn on their own.

The heuristic approach to learning should become an integral part of all disciplines; it is not exclusively the prerogative of the scientist. In every discipline students must be encouraged to make shrewd guesses and take intuitive leaps to tentative conclusions.

ENGLISH

In the way of specific changes in the curriculum, we must take a hard look at the subject of English since training in this subject is basic to all others. The currently popular view of English is that it should be taught as a tripod. The tripod consists of proportionate parts of composition, literature and language. May I add that from the standpoint of the teacher this approach is treated as if it were the only road to learning. Whatever theoretical support this tripod may have, it will surely collapse unless a new leg is added. The most important subject in the school curriculum is reading and it is high time that reading came to high school.

Every elementary, junior high and senior high school should teach three kinds of reading. The schools should offer.

1. A continuing remedial program for students who cannot learn easily.
2. A developmental program for students who need it.
3. A speed reading program involving sophisticated techniques such as skimming and rapid comprehension.

The weakness in the tripod arrangement is that it encourages teachers to attempt to ram Shakespeare down throats too narrow to swallow Rebecca of Sunnybrook Farm.

We don't know nearly enough about how children learn to read. A major commitment of the nongraded school is to work rigorously at teaching this subject. Let me give you an example of the problems we run into in the teaching of reading:

> I recently dealt with a high school boy who could read "carburetor" but could not read "car". I showed him the proper technique and you know what he said to me? He said, "You know, I think that's what she meant." You could almost see his mind going back to the teaching of a third grade teacher.

Then there is the tragic story of the fifth grade student explaining to her brother how to keep from losing your place when you read ahead of the rest of the class. I heard her say: "When you get to the bottom of a page, you count to 500. This keeps you from getting ahead of the rest."

One of the things that distresses teachers the most in the teaching of reading is the problem of what to do with students who reach a "plateau". My advice is, don't mind "plateau reading" too much. The protection in the Nancy Drew series is that they do run out. I am sorry that I can't say the same about Tom Swift.

Seriously, the revamped English program must place unrelenting emphasis on the refinement of reading skills. I would also like to point out that English programs can no longer afford to package information by bits and pieces. The other night my daughter lost a list of prepositions which she was supposed to learn. I said, "I'll get you another list." I did and the book had 58 prepositions. She said, "No, the teacher said there were only 54." Then we got another book and it contained 49.

In English, as in other subjects, we must stop running a race to cover up to here by Halloween. Suddenly Christmas is just around the corner, Easter is here already and the kids are following along with their tongues hanging out.

Before closing I must make one other terribly important point and that is that the schools must soon begin doing something about the rapid explosion of new knowledge. The scholars who keep a record of the world's gross supply of information estimate that knowledge was doubled for the first time in 1700. The second

doubling occurred in 1900, the third in 1950 and the fourth in 1960. If it is indeed true that we are entering an age in which the world's gross supply of information will be doubled every ten years, then we must reorganize, realign, and rearrange practically everything that we are now doing in the area of teaching boys and girls.

Any plan for nongrading must:

(a) classify accurately students of the same achievement
(b) permit frequent reclassification
(c) permit individualized goals
(d) have standards compatible with the varying rates at which students learn.

CONCLUSION

The technology of the nineteen sixties has created a society which is far from stable. Spectacular breakthroughs in science and computer technology have generated an atmosphere of rapid and accelerating change. Evidence of a changing society may be seen at every turn. The urbanization process is going on the world over. The big city metropolis has become the vast urban megalopolis.

The university responsible to one community has become a multiversity serving many communities. Even the relatively new concept of automation has given way to a newer styled process called cyberation. Servo mechanics is not far away.

If the schools can capture the spirit of the advancing technology which is encompassing our social, economic, and industrial lives, then the implications for a new process of education are simply enormous. Epitomized, the educational curriculum must move from auto mechanics to celestial mechanics and from terrestrial geography to celestial geography.

In the United States education has now moved to its rightful place at the top of the National Agenda and has become what former President Lyndon B. Johnson called "the Number One business of the American people."

2 Dialogue on the Curriculum of the Nongraded High School

DR. B. FRANK BROWN

The following is a summary of a dialogue between B. F. Brown and high school teachers on the instructional program of a nongraded high school.

Question: How do you cope with the reality of individualizing the instructional program in a nongraded school?

Answer: The main point I want to make is that the curriculum and the grouping of children for instruction are really pretty much what you want them, and a nongraded school doesn't have to necessarily cost you a lot more. It's good to have money for more and better individualized materials, but some people are doing nongrading on a kind of a shoe string budget.

In realigning curriculum you simply identify the big themes that hold the subject together and then you teach around these concepts rather than around chapters in a book. To make it teachable, a concept is broken down into its components so that teachers will be able to identify just what a youngster has mastered. A profile should be developed on each child. For example, if a student masters part of a concept the teacher should have some simple way of recording this information. And when he goes on, he takes this record with him. This illustrates the fact that the intent is to make learning continuous and keep it that way. Now a lot of school systems that are nongrading are trying to rearrange all of their material. This is an expensive and arduous kind of process, but it is the best thing to do if you can do it. But a lot of school systems can't do it and have to use existing materials which makes nongrading a little more difficult.

I want to come back a minute to this whole business of what you do. As an example, let us take a youngster who scores low on achievement. If you teach Canadian History the way we teach American History, we require it three times. It is required in the fifth grade, in the eighth grade, and in the eleventh grade. Let us take a youngster who has had American History twice—in the fifth grade and the eighth grade. He gets into the high school, and he has an achievement test which indicates he is at the fifth percentile in American History. What do you do with him? There is no point in

putting him back in class with the same kind of course he had before where the teacher asks the same old questions and she gets the same old answers. So what we try to do is to put him in a different kind of a situation: We put him into a history laboratory in which he is involved with discussion. We tell the teachers to cut down on the talking and to try and have about 75% of the time devoted to small group discussion. You see, youngsters who don't really learn history well are not going to learn it except by talking about it. The point is that the subject matter is presented differently, depending upon the student's level and rate of learning. On the other hand, a student may be performing at about an 80th percentile in American History when he stops what's customarily called the 11th year history. This type of youngster should do a great deal of independent work.

I'd like to see history at the high school level start out like this. On the first day the students come in and discuss liberty, and in a few minutes they say all they know about liberty. Then the teacher lets them spend the next six or eight weeks tracing the development of liberty from its beginning. Then I'd like to take the concepts of justice and equality and tackle them the same way. And then, we should take other big concepts in history and rebuild the subject matter around it, bearing in mind that different youngsters tackle it in a different fashion. Some youngsters can handle those concepts on a discussion basis. Other youngsters can handle them on a research basis. We find that one way to loosen and variegate the program is to use contracts. A contractual agreement works like this. The teacher does not need to meet that class every day. The teacher writes into the contract what the students' assignments are. The teacher will say, for example, "Mondays, Wednesdays and Fridays you be in the library and this is what you'll be doing. On Tuesday I'm going to meet with this group of students, Thursday with this group of students", and so forth. This is one way of dealing with the problem of having one person trying to handle thirty people. This plan lets teachers work with five or ten at a time.

Now when I go around on speaking engagements, I make friends with librarians, but I lose them all after about five minutes. I make my friends when I say I think the library should be as big as the gymnasium or bigger. I lose them all when I say that one profession that must change is that of the librarian. I am just appalled at how libraries are still operating on a medieval kind of basis. My deepest impression of public school librarians is summarized by the case of the principal who walked into the library and said to the

librarian: "How are things in the library today?", and she said: "Oh, they were never better, do you know there are only four books out?" The library has got to change. It has to become more open in dealing with students and allow them more freedom. They must be allowed to do research because teachers are doing a better job of motivating this kind of activity and they need this kind of support. So, I consider that in a nongraded school the library should be the great support area for the whole program.

Question: How much freedom should a student have in a nongraded school?

Answer: We've got to pay a lot of attention to student preference and student choice. Now, what students really have is a kind of guided freedom. Lady Boudin called it "ordered freedom". But a youngster blends his interests with his learning, and children will learn so much more than they did when the teacher did all the work. Now if they can do that in the British primary schools, then certainly at the later elementary, junior high and senior high level we are going to have to recognize the same problem and allow more choice.

I'd like to see a school year begin with the first couple of days devoted to registration where the student comes in and schedules himself. The youngster works out his own program of studies. I'd like for him to choose his teachers. Now this is sort of hard on some teachers. But if a youngster chooses his teacher, there is liable to be less chance of personality conflicts. So, I find that they invariably choose the best teachers, not the easiest teachers. Basically then, the student ought to be able to write his own schedule, but he should have before him when he does it the data on his past performance and on his achievement tests.

Question: Is it difficult to get teachers to teach slower students in a nongraded set-up?

Answer: If a youngster is a slow student or has not achieved well, then he should be put in a class that is smaller than our average size class. The obstacles imposed by class size provide one very good reason why we have not been able to get our best teachers to work with our slowest students. I find that whenever I'm interviewing a teacher for a job, and I ask him about the kind of student he likes, he usually says that he likes accelerated students or advanced students. No teacher has ever come to me and said: "Give me the stupid, and I will teach them because I am a teacher." They all want the best students. But the reason for it is really an administrative

problem and I think the reason for it is that administrators have not made the classes small enough for the difficult learners so that they really can be taught effectively. These classes at the high school level should have no more than 12 to 15 students because these youngsters are still learning the basic skills. The brighter students should be in the average size classes because they can learn more by working on their own. There is no reason why we cannot play Robin Hood and steal from the rich to give to the poor. One way that I achieved this at the high school level is by having all of our typing classes contain over 150 pupils per class. That's no problem. Typing is not a subject that is as difficult to teach as math, science, or English. The typing teacher will disagree, but let's be realistic. If the idea of programmed learning is any good at all, then typing is a self-learning subject. It is a programmed learning skill subject and therefore there shouldn't be any worry about the size of the class. And we've found that we can teach children just as successfully in a class size of 150 as we can in a class size of 25 or 30 because the children have a gadget and the course is programmed. This gives us extra teaching time to devote to the small class.

Question: What is your thinking about teacher aides?

Answer: We haven't given near enough thought to teacher aides. I predict within the next five years this whole business of teacher aides is going to open up everywhere. The British have already discovered this, and they are using a lot of teacher aides in their classrooms. In fact, practically every elementary school has three or four teacher aides. I think this is going to come in North America because it allows the teachers more time to do professional work. And it's also a very inexpensive way of increasing the size of the school.

Question: What kind of school graduation requirements do you have?

Answer: First, there are some limits and guidelines because the legislature in all of our states has certain requirements. In the past, our schools have been heaping requirements on top of those requirements, and this is what we want to avoid. What a school should do is to keep its requirements to a minimum. In our school we worked out a big massive schedule which points out the course offerings and the class times. Students pick this up when they register. The seniors come in and register the first day because that enables them to have a choice of teachers. And if there is a great teacher in the school, they'll have the first choice of getting

her because they are going to be leaving. And the next day the juniors come in. They do not have quite as much choice because the older students had the first choice. Then the following day the sophomores come in, and there's not quite as much choice as there was the day before. But as the youngsters get older, they have more choices. Selection of courses operates this way. A student will come in and look at his phase data, and he'll say: "I should be in phase three English, and I'd like to register for that phase." The head of the department will check her phase data and say: "That's right. Now those four teachers are going to teach in that area; you pick one out and sign up." As soon as that teacher gets a certain number of students, she closses her class. It's that simple. Another student may come in and say to the teacher: "The phase data says I should be in phase 3, but I can do phase 4 work and that's what I want to take." The teacher agrees because a student should be allowed to go beyond his achievement level. A talented student may work below his level. If you put him up higher, he's not going to do it anyway. If he is placed in a phase against his wishes, he's just going to clutter up the class. He needs wise guidance. You should sit him down and explain to him the fact that he will be working way below his level of attainment, and so forth, but, if he insists, the best thing to do is to let him go as low as average but not below.

Question: Does your school have pre-registration in the spring?

Answer: Our students actually pre-registered in the spring, and this is used as the basis for making out the schedule. But the students are not committed to that. They register again in the fall because a lot of students pick up different interests over the summer, and you've got to let them change their minds.

Question: How do you inform your students about college entrance requirements?

Answer: At registration he gets a little booklet that tells him what, in our case, the State University requirements are. Our Universties vary, and our liberal arts colleges vary. For example, our state universities do not require foreign languages. Our liberal arts colleges have gotten to the point where they won't give you credit unless you've had three years for foreign language. So a student has to study this for himself. We find that the very fact that they are put through this process of working out their schedule, provides a kind of intellectual exercise which makes a student much happier with school. He doesn't have the hostility he would have if you, for

example, put him in physical education during the first period after lunch.

Question: Does your state have school graduation requirements?

Answer: Yes, most states do. They usually require at the high school level one year of math, three years of English, home economics for girls, one year of science, two years of social studies, one of which must be American history.

Question: When does a student work in these requirements?

Answer: The junior high is more precise and exact, and it tells you when you to do this, but the senior high does not. You are simply informed that in the top three years of school you must take a minimum of one math, three English courses, two social studies, and that kind of thing, and it is up to the student to decide when he will work these in.

Question: Does your state have required texts?

Answer: Yes, our state has texts which are free, but these texts are not appropriate for a lot of our children. This is another reason why a class for slow learners would have to be smaller. A teacher has to prepare a lot more material at that level than at the other levels. As I said before, we have a state adopted textbook program but most of the texts that the State gets are pretty miserable.

Question: Do you use standardized tests?

Answer: For many years, and I guess you are doing some of this too. For a long time our students have been taking college boards examinations. These are all based on achievement, and most of our colleges are now selecting students on the basis of achievement. Furthermore, our colleges are giving some students advanced placement on the basis of their scores on the advanced placement examinations. Incidently, this year Harvard admitted over half of its first year students as full sophomores based on achievement examinations. You cannot test for the I. Q. accurately, but you can for knowledge of a subject. So we use what is called the Stanford Achievement Tests which, I believe, are the best ones for elementary right through twelve. For example, a student coming into junior high takes a Stanford Achievement Test in mathematics and

if it indicates he is very low in math, then we go ahead and let him temporarily register in a pretty fundamental math course or in a remedial one. During the first week of school the teacher gives a diagnostic test to try to pinpoint just where each child is and just how much he knows so she can teach directly to what he knows. This is our approach. We use first the standardized test and then we back it up with a diagnostic test before we move in with specific teaching materials.

Question: To what extent should reading be taught in high school?

Answer: This is a good professional question. Let's take as an example a student who comes into high school as a poor reader. We give him an achievement test in English. Now he scores around the 8th percentile, which is pretty low. Then we check him out with reading tests and find he is reading at the third grade level. It would be absurd to try to put him in a tenth grade English text, with Shakespeare in it because he can't read Shakespeare. In fact, his throat is too narrow to swallow **Rebecca of Sunnybrook Farm.** So we put him in a remedial reading class, and we call that English. He studies reading in the reading laboratory for two hours a day. I think reading is the best thing we could teach him. Now he never sees the state's grade eleven textbook, because it would be embarassing to him. He couldn't read it, and thus there is no point in giving it to him. Now we've been graduating students from school who can't read and we're still doing it, but not so many as we used to. It's about time that reading came into the high school program.

Question: In placing students, do you pay attention to the grade level of the subject matter?

Answer: We don't pay attention to the grade level. Any student can take anything he wants but before he gets out of high school he has to fulfill the state requirements for graduation. Courses are arranged for all levels of students. We encourage remedial students to take remedial work and advanced students to take advanced work. We don't pay any attention to the grade level.

Question: Is a student's request to enter a certain phase ever rejected?

Answer: No. He won't be rejected for a phase. He could be rejected for a course, but it won't be one of the required courses.

You try to guide him into the phase in which he fits, but in the final analysis, he makes this decision.

Question: How do you determine the number of students in classes in different phases?

Answer: Our only guideline is that the lower the phase the smaller the class. If you're going to get great teachers to teach lower phase students, we must give them numbers with which they can operate effectively. We say fifteen is the absolute maximum, and that teacher never has to take the sixteenth child. Teachers of higher phases will have more pupils.

Question: How do you determine how many course sections to offer at each phase?

Answer: We get the achievement scores in the spring, and we know from the scores how to set up courses particularly in the area of English and mathematics. If you have a large number of remedial students, you make sure that you have enough remedial courses. Some of our schools only offer two phases. In one of our schools, for example, 60% of our black students were reading below the fourth grade level, so this school only needed two phases. Then we have some schools over in Coco Beach where the students are Missile kids. They only have phases 4, 5, and 3. They don't have any remedial. So. . . . what you do is that you first look at your student body and what they have achieved and then you group them accordingly.

Question: What is the difference between a nongraded high school and a comprehensive high school?

Answer: Well, a nongraded high school is a comprehensive high school. The difference lies in the way the children are grouped and in the way the curriculum is developed. In a comprehensive high school, comprehensiveness simply means that your vocational courses and your academic courses are all under the same umbrella. Instead of having a vocational school and an academic school, you have everything in one place where you can accommodate all kinds of children. In the typical comprehensive high school, if it operates a conventional program, each student takes his courses on a graded basis. In an unconventional school, you just open up the whole thing. The school is programmed around the achievement of the student body as measured last year on achievement tests and you take courses accordingly.

Question: Why did you call modular flexible scheduling a gold-plated frill?

Answer: I'm opposed to modular scheduling. You're right, I called it a gold plated frill. In the first place, this is passing in a hurry from the American scene. By its very nature, scheduling is set up so that the student can spend different time blocs in different activities. Now the problem with that is that in order to make it work, you have to have a big block of time. What most of our schools have done is to schedule everybody in independent study. Now all high school students cannot do independent study. I'll give you a case at Morning Side High School in California. Everybody is scheduled in independent study. The school found out that a lot of students can't do it so they had to let some of their students go to the cafeteria. At first, the students all wondered off during their free time; so the School Board put a big fence around the school and kept everybody there. And when they were all milling around the cafeteria one day, a black girl threw a pencil and hit a white girl in the eye and they had a race-riot. So the police asked them to do away with modular scheduling. Dissenters are using this big block of time in the school for massing. This is why schools that have had the most trouble with students are the schools that are on modular scheduling. Now, I like to give everybody a place. If a student wants to take independent study, that's fine, but he bloody well better do independent study. And independent study to me has to be a very vigorous kind of thing. Our students on independent study must first submit an outline of what they're going to do; then each comes up for an examination or he has to have an oral seminar before a committee of three teachers, and it is also open to students. These things work out very well for us, and we've been very pleased with independent study done that way. In fact, I think today our high school subjects should include anything that a student can study with profit and pleasure. And if you think about that, I think you won't disagree with me too much.

Question: How often do you give standardized tests?

Answer: We give them annually, and a student can take an extra one whenever he wants to by arranging it with the guidance counsellor. We send the scores home so the parents will know how their children are performing in relation to other children. We use to have a lot of trouble when a student would make all A's and then drop to the bottom on his college board exams.

Now there's one other thing that I haven't discussed, and that's marking of students. Our students who are not doing standard work are marked on a pass or fail basis. And it's not fair to give them any other kind of a marking scale. If you put them on the A through F plan, they're always making D's or F's. In order to give some respectability to the marking system, in order to really show that we believe in student choices, we call it a pass/fail option. On the other hand, a student who has a fine record and who doesn't want to take physics for fear he'll get a bad mark can opt to be marked pass or fail. But they have to make this option within the first two weeks of school, and once they've made this option, they can't change it.

It's almost time to go; so I might just say this from experience. My daughter entered first grade in a graded school. Oh, how she hated school. You never saw a six year old hate anything so much in your life. What was even worse was that she told everybody how bad the school was. This was embarassing for me as a school administrator. So, one day I pulled into the driveway, and she ran out to the car with her eyes full of adventure, wonder and joy, and she said: "Daddy, guess what happened at school today."? And, of course I said, "They must have nongraded it." She says: "Well, daddy, no. The teacher was planting seeds in little pots and putting them in the window. But she didn't have enough dirt; so she said to me, "Cassandra, you go out in the school yard and get us some more dirt." And she said: "Daddy, she sent me all by myself. Do you realize what I could have done. . . . I could have escaped." Now, we just don't want children to feel that way about the kind of schools we are operating. Good luck.

3 Social Studies in the Nongraded School

MAURICE RECCHIA

In this section we will primarily be concerned with teaching teams and their deployment in a nongraded school, learning experiences, teaching strategies, skills and evaluation in nongraded elementary school social studies.

One of the approaches to teaching social studies in the elementary school is the utilization of teams, or the employment of team teaching. The implementation of the social studies curriculum via a team teaching approach does not occur by osmosis. A great deal of planning, research and hard work is involved. Teams are usually composed of from three to five teachers and are directed by a team leader, usually a member of the team.

There are nine crucial phases for teams to consider when planning a social studies program. Much preliminary planning occurs before these nine phases go into effect. These include determination of the over-all scope and sequence of textbooks, supplementary books and multi-media materials, i.e. films, filmstrips, pictures, transparencies, slides, maps, globes, simulated materials, etc.

While we will examine each of the phases separately, they overlap when actual implementation takes place. These are the phases for a teaching team to consider when planning a social studies "Teaching Unit.*"

1. Teachers read on the proposed unit topic.

It is crucial for every member of the teaching team to develop depth and breadth in regard to the proposed unit topic.

2. Teachers survey written materials available to the children on the unit topic. Books, games, pamphlets, etc. should be reviewed to help to determine, content, levels of difficulty and suitability.

3. Consider scope and sequence of unit phases.

The scope includes the depth that each stage of the unit will seek. Sequence relates to what will be taught in each major division of the unit i.e. introduction stage, development stage, evaluation stage.

*A teaching unit is defined as a unit planned for a specific group of children working under specific conditions.

4. Stake out key lessons for collective planning.

This is crucial in team teaching. No longer can the teacher retire to her private domain and plan alone. This means collective planning. At this point teachers should be individually committed to doing some research on planning in preparation for collective planning in future meetings.

5. Teachers develop evaluation procedures for major objectives of the unit. Tests cannot cover all material, nor serve as the sole basis for evaluation. They should help to establish both teachers' and pupils' expectations of levels of mastery which are desirable and possible.

6. Weekly meetings for collective planning should accomplish the following:

a. Critique of previous collectively planned lesson, i.e., how effective it was in follow-up, etc.

b. Discussion of plans proposed for next key lesson by the individual responsible. This will lead to the individual's preparing a written plan in advance of the lesson's being taught, so as to coordinate preparation and follow-up and to serve as a record for next year's "Resource Unit." (Some of the "Resource Units" may be kept from year to year but are revised as they are made into "Teaching Units.")

c. Discussion of possibilities for individual, small group and class studies revolving around understanding highlighted in key lessons.

7. Daily planning on a contingency basis. Pupil-teacher planning is recommended especially for individual and small group projects within the frame of references established by the unit.

8. Coordination of daily plans. Teachers can share activities, children etc. provided (a) that plans are made public in advance and (b) that team leaders encourage cooperative instruction.

9. Team leaders help teachers set up conditions in the classroom to facilitate planful behavior of children and teachers. This could involve strategic use of leaders' teaching commitments, clinical analysis of teaching style, help with grouping, help with record keeping on pupil progress etc.

Many new materials are available to assist teams and individual teachers to implement a "continuous progress" program in elementary school social studies. One of these is a series of units called "Learning Activity Packages." Learning Activity Packages were developed in the Nova Public Schools, Fort Lauderdale Florida. A detailed explanation of Learning Activity Packages appears in Developing Nongraded Schools [2] by Sydney Rollins.

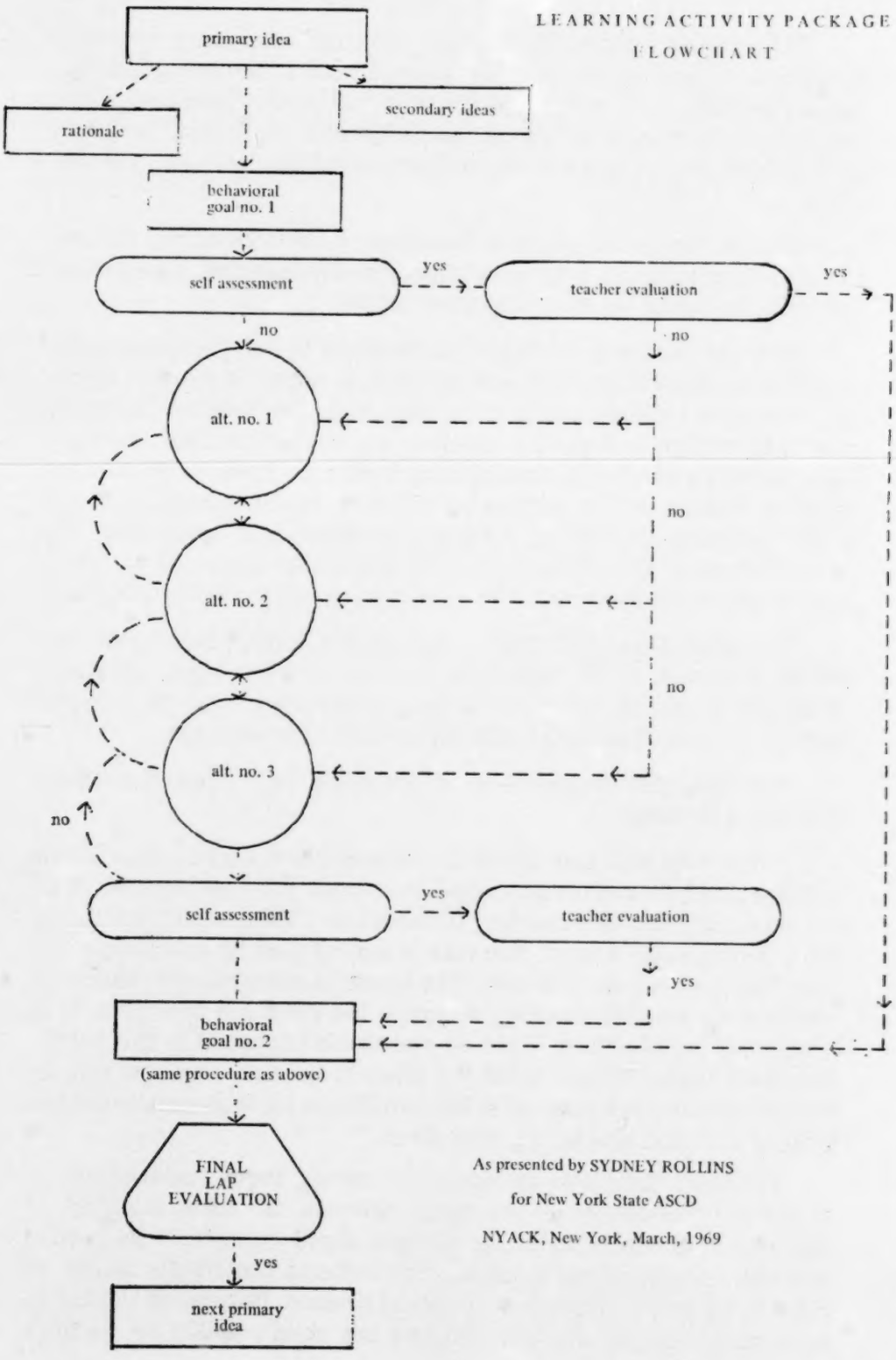
The Learning Activity Package (hereinafter referred to as LAP) represents an attempt to encourage pupils to progress at their own rates (and depths) in their own learning styles.

A flowchart (see illustration on following page) illustrates the application of the LAP principle. Each LAP begins with a statement of the concept of the primary idea to be learned. In addition to a clear statement of what is to be learned, a rationale is developed that has the twin purpose of 1) tying the LAP to previous experience, and 2) motivating the learner. Subconcepts, or secondary ideas, are also stated. Then the purposes of the package are stated in behavioral terms. The pupil tests himself in terms of the purposes. If his self-assessment is satisfactory, he requests a teacher evaluation. If the teacher evaluation is satisfactory, the pupil moves either to an additional exploration of the LAP, or on to the next behavioral goal (assuming two goals in this example). If his self-assessment and then teacher evaluation are satisfactory for this second goal, the pupil has completed the LAP and moves on to the next.

If a pupil does not have a satisfactory self-assessment, he is directed or directs himself to the materials and activities designed to help him to achieve the behavioral goals. The materials and activities for each LAP include a variety of alternatives. Alternatives are developed primarily in terms of learning modes. Each alternative consists of background and source materials, suggested activities, suggested modes of learning and teaching and suggestions for self-assessment. If, having worked through the material and activities for the first alternative for a given LAP, a pupil still has not achieved the desired behavioral goals, the pupil switches to a second alternative that presents the same content utilizing different source materials, activities, and modes of learning and teaching. If the pupil still does not achieve the goals, he requests a conference with a teacher who might suggest a third or even a fourth alternative, or perhaps a different LAP.

LEARNING ACTIVITY PACKAGE

FLOWCHART



As presented by SYDNEY ROLLINS

for New York State ASCD

NYACK, New York, March, 1969

Pupils and teachers, in working through Learning Activity Packages, become involved in large group and small group instruction **as needed,** or in individual study if that seems desirable. Each pupil, then, wherever he fits on the continuum from fast learner to slow learner has an opportunity to learn at his own pace, in his own style.[3]

The teacher is no longer a disseminator of information but becomes a diagnostician who prescribes specific learning experiences for children based on their cognitive styles.

How can teaching strategies be designed to help teachers make predictions about children's performance. It seems to me that teaching strategies must do much more than help the teacher transmit new information and permit children to manipulate this information. Teaching strategies should have built into them principles related to evaluation. By evaluation we refer to measuring the student's progress, evaluating teaching strategies and evaluating the effectiveness of the curriculum. It is especially important to carefully evaluate these elements in a nongraded social studies program.

The objectives of the new social studies curriculum stress understanding and skills; therefore, the old memory type questions must play a subordinate role. Primary importance must be given to testing for understandings and application of knowledge.

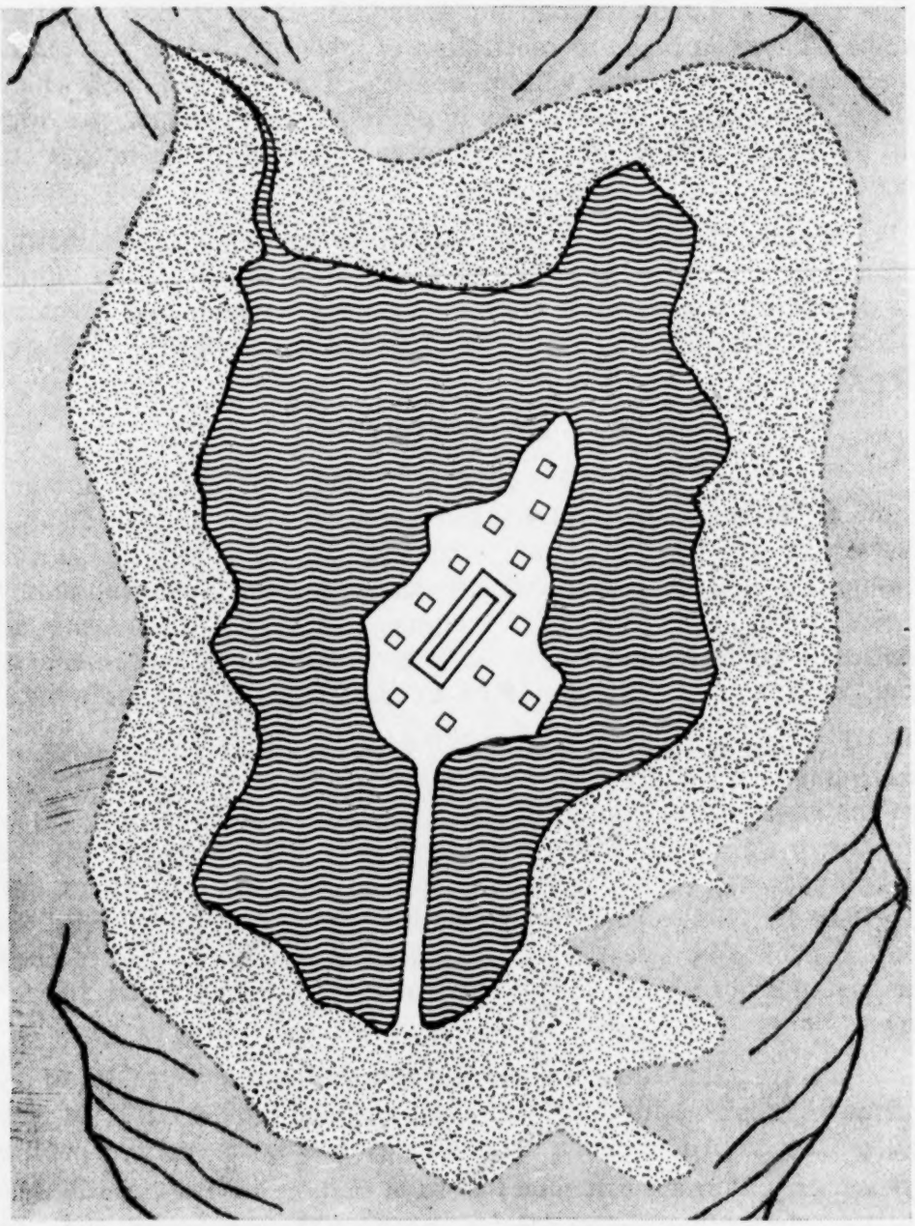
One approach suggested by Bruce Joyce[4] is to present children with the following:

"This map shows an island in the middle of a lake. The island is connected by a causeway made from stones piled on the bottom of the lake until the pile reached the surface. Then smoothed stones were laid to make a road. The lake is surrounded by mountains, the only flat land is near the lake. The island is covered with buildings whose walls are still standing although the roofs are now gone. It is completely uninhabited. What do you think happened to the people who lived there? What caused the place to become empty of human beings? Relate your reasons to the conditions for human life and the kind of life that was being lived there."

Feedback from the children will reveal their understandings of various concepts from the social sciences or their inability to manipulate concepts from the various social sciences. Responses related to forms of governments will indicate the child's ability to identify understandings from political science. Responses related to topography and climate will indicate the child's ability to identify

understandings from geography, and responses related to social organization, family life, etc. will indicate the child's ability to identify understandings from sociology.

Another approach that might be utilized is the development of "Hypothetical Maps."



The teaching of the hypothetical map is one of the best devices for introducing new geographic concepts and correcting faulty ones. No two pupils have the same difficulties and this device gives the teacher an excellent opportunity to do individual work with the members of the class. This unit of work will result in a class having a much better knowledge of geographic fundamentals and principles, and it will increase their understanding of geographic relationships. There can be no memorization of facts because no two pupil-made hypothetical maps will be identical. The land use map, which the pupils make as a part of the hypothetical map project, provides an excellent means for introducing elementary concepts in economics.

Hypothetical maps may be adapted to any level by eliminating or adding concepts. The following work is planned for an upper level class. It is a useful project for drawing together and checking all of the concepts which have been taught in sequences at lower levels.

MOTIVATION

"How many of you have lived in, or had a long visit in another state or country? What did you like about it? What did you dislike? Have you ever tried to picture a land where everything was as you would like it to be, a place where you might find beautiful sunny beaches and rugged mountain scenery, and where the people all earned a good living because the best possible use was made of natural resources? That would be an ideal land, wouldn't it?

Let's plan such a country. We will make a set of two maps of our imaginary country. We must place this country on the surface of the earth where it will not touch another large land mass. The first map will be the physical-political map, and the second will be a land use map telling how the people will use the land to supply their needs. You can see why we have to locate our island countries in latitudes where people can earn a good livelihood. There must be a standard of living in our hypothetical countries equal to our own.

We are going to have some fun along with our work. You may name your island anything you wish, and you may make it in any shape. Let's see how much originality you have in working out a clever map. Perhaps someone will want to have an 'Animal Isle' and make it in the shape of an animal's head; or 'Flower Island' and give all of the surface features, land forms, water bodies, cities, and so

on, the names of flowers. Pirate Land, Disease Island, or Cartoon County have interesting possibilities, too.

After we have completed the two maps, we will also write a brief description of our island country, such as we might find in The World Almanac. This will prove that you understand all that you have placed on your maps. Let's advertise our island and try to interest people in coming to live on it by making travel folders similar to those used by the travel agencies.

Here is a list of the natural and cultural items to be placed on the physical-political map:

1. cape
2. peninsula
3. sound
4. island
5. isthmus
6. strait
7. bay
8. a swift river
9. a meandering river
10. latitude
11. longitude
12. plains
13. plateaus
14. mountains
15. falls
16. lake
17. delta
18. swamp
19. desert
20. five cities
21. canal
22. railroads
23. scale of miles
24. profile
25. arrows showing wind directions

Show the entire list so that the students will grasp the overall plan for the project. From this list select a few items each day for which you will develop understandings. There must be sound reasons for placing each item on the maps. To have the students try to place all of the items at once without the study of relationships causes confusion and results in much extra checking for the teacher.

DEVELOPMENT

It is necessary to develop the work slowly, step by step. This provides an excellent opportunity for the teacher to discover and correct the inaccurate concepts which the pupils may have concerning geographical terms. Many students will be seeing geographic items and relationships for the first time. It is one thing to read meanings from a physical-political map, and quite another to place natural and cultural items on a map so that certain relationships will exist. Such work necessitates understandings and application of geographic fundamentals. This requires thinking, and thinking takes time!

THE PHYSICAL-POLITICAL MAP[5]

1. "The first seven items on the list refer to land forms and water bodies which affect coastlines. About what cape have you heard? Cape Cod, Cape Kennedy, and so on." The teacher points to these on the world map. "Why are these called capes? Cape comes from the Latin caput, meaning head or point. Capes are points of land extending out into the sea. Name some peninsulas about which you have heard. How does a peninsula differ from a cape? Peninsula comes from two Latin words which mean "almost an island. Would capes and peninsulas be an asset or a liability to a country?"

Continue in this manner with the remaining five items. Then summarize the day's development by giving the definitions of each of the seven items orally, or in the form of a quiz, to see if the pupils understand the meanings of the terms. Have the pupils open an atlas or textbook to a physical-political map. Then have them trace the coastlines of several countries with their fingers to actually "feel" how irrgular coastlines are. For application work of this day's lesson, have the pupils sketch a simple outline map which will include the seven items discussed in the lesson. This outline map need not be the one they will use for their final map. It is merely a way to check whether or not the pupils have the terms clearly in mind.

2. "How many of you have decided what shape your island will be?" Check the outline maps. "Today we must decide where in the world to place it. We cannot place it on any of the continents or large islands. How does latitude affect man? What effect will latitude have upon your island?

We know that later we will place rivers on our maps. We want to be sure that our islands will be in a latitude where the winds will bring rainfall. We shall need to review the generalized wind belts to find what winds will affect our islands and the conditions we shall find in different latitudes."

Generalized wind belts should not be taught as such before the seventh sequence. The fifth sequence pupils will be familiar with the westerlies from their study of the United States, and their islands should be placed in that latitude. Work on Latin America will include knowledge of trade winds and the equatorial calms. If the hypothetical map is taught in the fifth or sixth sequence, be sure to have the pupils place their islands in a latitude with which they are familiar.

3. "What three kinds of surface are shown on the physical-political maps you have seen? How are differences in surface indicated? We shall have to be very careful in planning just where the plains, plateaus, and mountains will be placed on our maps. Why? Effect on precipiation, the courses of rivers, location of lakes, swamps, use of the land, and so forth.

Look at the physical map of the world. What do the colors indicate? Notice that the color bands are very uneven, wide in some places and narrow in others. Trace with your finger the edge of a color band. Do you see how rivers have worn the land to lower elevations? Notice the differences in color along the courses of the rivers. In what other ways is the elevation of the land changed? What color is used for each type of surface?" The teacher should draw a simple profile to make sure that the students are seeing eleation and not just color.

"Have you decided in what latitude you are going to place your island? From what direction will the wind bring moisture? Keep in mind that a desert must be placed on the map. What causes deserts? What is the surface of a desert region like?" More children have incorrect ideas of deserts than of any other item. A physical-political map of southern Argentina will show desert areas on three types of surface.

"Deserts may be found behind a mountain barrier, in the horse latitudes and in areas where the rain-bearing winds have lost their moisture before reaching a region. If you plan to have the desert in the rain shadow of the mountains, in what direction will you plan to have the mountains extend? In placing the mountains be sure to leave plenty of well-watered land for the people to use to earn their living.

4. Are you sure there will be water for your rivers? Will the region where the rivers rise receive rainfall? One of these rivers will have a delta. What does this tell you about the course of the river and the surface of the land through which it flows? Your second river must flow through an area where the color bands are very narrow. What does this tell you about the surface of the land and the rate of flow of the river? Where might there be a waterfall on this river? How will the people use the falls? What is the map symbol for falls?

5. What are swamps? How are they caused? Where are swamps likely to occur? What is the symbol used to show swampy areas? Find swampy regions on a physical-political map. Of what value have some swamps been? How are lakes formed? Study a physical-political map to see where some of the lakes are located. How do they get water? What are some of their many uses?

6. There are many factors which influence the growth of cities. You can not place cities or railroads on your physical-political map until you develop the land use map. You must show a need for both cities and railroads.

7. Each of you will have a different scale of miles for your map. Two parallels of latitude must be indicated at the margin. There are approximately seventy miles in one degree of latitude. If the parallels are five degrees apart, the space between the parallels will represent five times seventy miles or 350 miles." See pages 59 and 85.

8. "Draw a simple profile of your island under the map." See the Making of Profiles, page 93. "This is a test of your ability to read elevation on a physical-political map and to transpose that information into the graphic form of the profile."

If the teacher has had the class, as a whole, check these maps frequently; then there will be less for him to check individually. At the beginning of the class period, ask questions to see if the students have the natural items correctly placed: "How many have located their islands in the westerlies? In the trade winds? From what direction will the winds blow? Have you placed the wind-direction arrows?" And so on. This will often help correct many minor errors and will save time when the teacher checks the work of individual students.

Have the pupils color the kinds of surface roughly on the practice map so that it is easier to correct. Follow the standard coloring for physical maps: mountains, tan or brown; high plateaus, orange; low plateaus, yellow; plains, green.

Many of the pupils will finish the assignment at approximately the same time. As a result, there may be congestion at the teacher's desk as he does individual checking. Have the pupils sign a paper when they are ready for a check and correct their work in the order in which they have signed. They can return to their desks, and while

waiting, make two copies of their checked outline map, one on oak tag or art paper for the final map, and one on scratch paper on which they will plan their land use map.

LAND USE MAP — AN ECONOMIC APPLICATION OF GEOGRAPHY

9. "Now we must plan how the people on this island can earn a living. Do you have an outline map of your island on scratch paper? Put in the natural regions and color them lightly. We need to show surface because various kinds of crops grow at different elevations. We shall need to learn what crops grow in the equatorial calms, the trade winds, the horse latitudes, and the westerlies." See Appendix H. "I don't believe that any of us will place our islands in the polar latitudes and so we will exclude them from our list. What effect will elevation have upon the kinds of crops raised? What will grow on the plains, low plateaus, and high plateaus in each of these latitudes? What use can be made of the mountain areas? We are planning a high standard of living; consequently, we will need minerals to be used in manufacturing to provide jobs. You may choose two minerals. Think of your location. Can nearby countries supply you with the same minerals which you have chosen? Would it be better to select minerals which are difficult to obtain, or minerals which would add to the economy of your country?"

THE ECONOMY OF THE ISLAND

10. One definition of the economy of a country is the use of the natural resources to supply the needs of the people. As the students list the needs of the people and try to work out a plan to supply them, they become impressed with the fact that most of our wants are supplied from the earth. They become aware of the great number of workers at home and in foreign lands who are involved in supplying our needs. Interdependence becomes reality instead of remaining just another word. Have the pupils list needs of the people, such as cotton, wool, synthetic fibers, leather, rubber, wheat, corn, rice, vegetables, citrus fruits, milk, meat, glass, paints, copper, steel, and so on.

"Which of these commodities can we supply on our island? Those we cannot supply we will have to import. We may need to manufacture in order to provide work for our people. In this case we will import some raw materials."

In the same manner discuss and name the natural resources of the islands, the subsistence crops, the cash crops, the manufactures and the cities where products are made, and the imports and exports.

Now the pupils are ready to plan the land use map. A surplus of agricultural products must approximate the value of the needed imports. On the map place symbols for crops and minerals where they will be grown or found. Use pictorial or nonpictorial symbols, remembering that the symbols must all be the same size. To keep them uniform, draw the symbols within the confines of a hole punched in a card.

11. Discuss the reasons which determine the growth of cities. Below are listed a few of them. Have the students add to the list.

a. railroad center
b. near a source of cheap power
c. lake port
d. river port
e. seaport
f. industrial center
g. agricultural center
h. near mineral deposit
i. break-in-bulk
j. health resort

12. "Now it is necessary to think of the products we need to manufacture on the island. Where would a city be located which would manufacture these products?"

After cities are placed, plan the routes of railroads which will carry the products made or grown on the island to ports or to other markets.

"What products will be exported? What raw materials or manufactured products will need to be imported?"

After working out these concepts on the scratch land use map, place the cities on the physical-political map. The railroads should be red lines. Then make the final land use map which should also have a key, a scale of miles, and parallels and meridians.

SUMMARY

The description written by the students summarizes the information given on the two maps. Have the students write the description in encylopedic form following a definite outline. They should give the size of the island in miles, north and south, and east and west; surface; climatic conditions; leading industries; chief crops,

exports; imports; cities; and scenic spots. Writing this summary not only requires the ability to read back the information placed on the maps, but it also gives an opportunity to practice the many geographic skills used in making the maps.

APPLICATION

The travel folder is supposed to advertise the island in such a manner that it will attract tourists, prospective home-seekers, and industrialists. This work can be assigned as work for extra credit. It also provides additional enrichment work for the better student. Have a few commercial travel folders brought to class. Discuss their merits. Posters can be made to illustrate scenic spots on the islands. Perhaps some students will enjoy making rainfall, population, land use, or even salt and flour relief maps of their islands.

TESTING

For a test, have the pupils answer the following two questions about A, B, and C, described below.

1. What climatic conditions would be found here?
2. What might the people do for a living?

Region A. A wide plateau stretched for hundreds of miles. The latitude is 30° to 36° N.

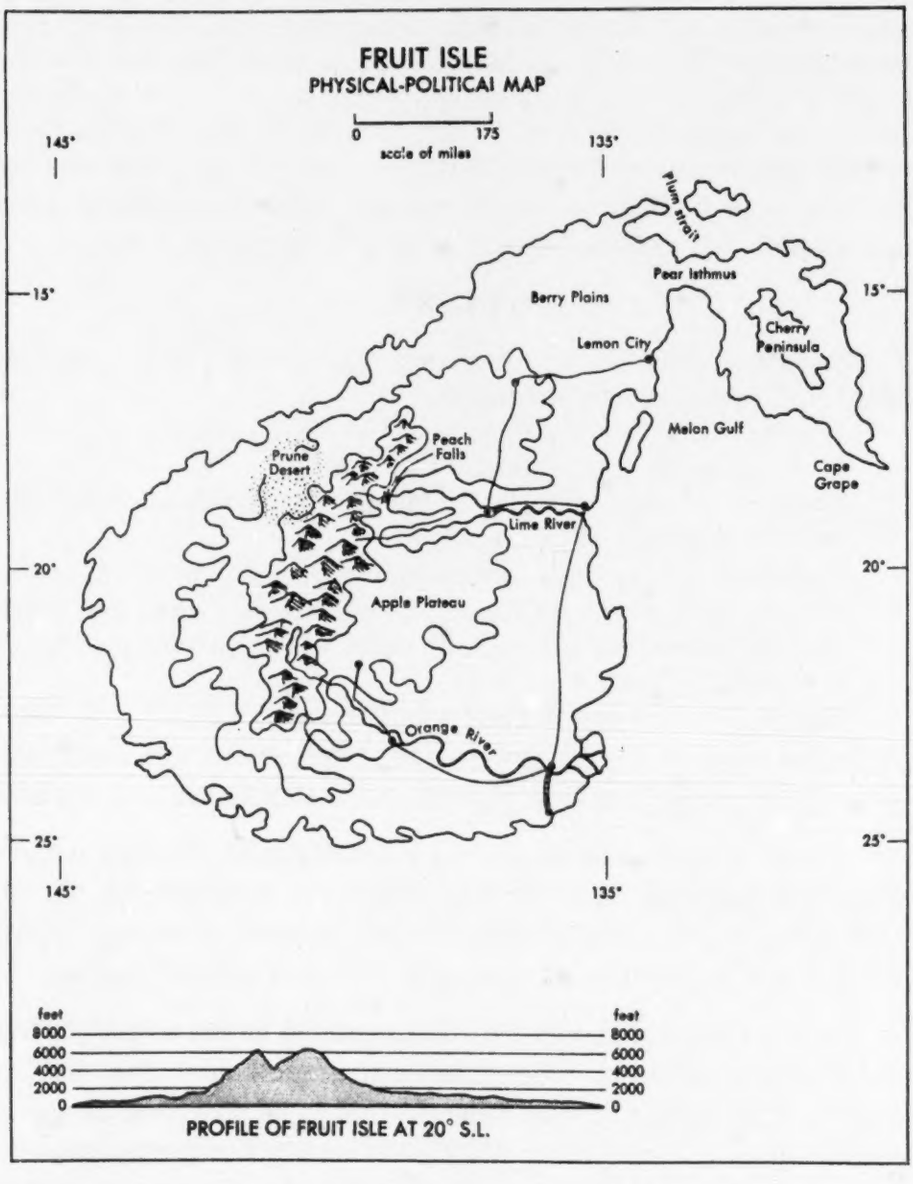
Region B. The latitude of this land is from 40° to 50° S. In the western part, a high wall of mountains extends north and south for hundreds of miles along the coast. In the eastern part there is a rolling plateau.

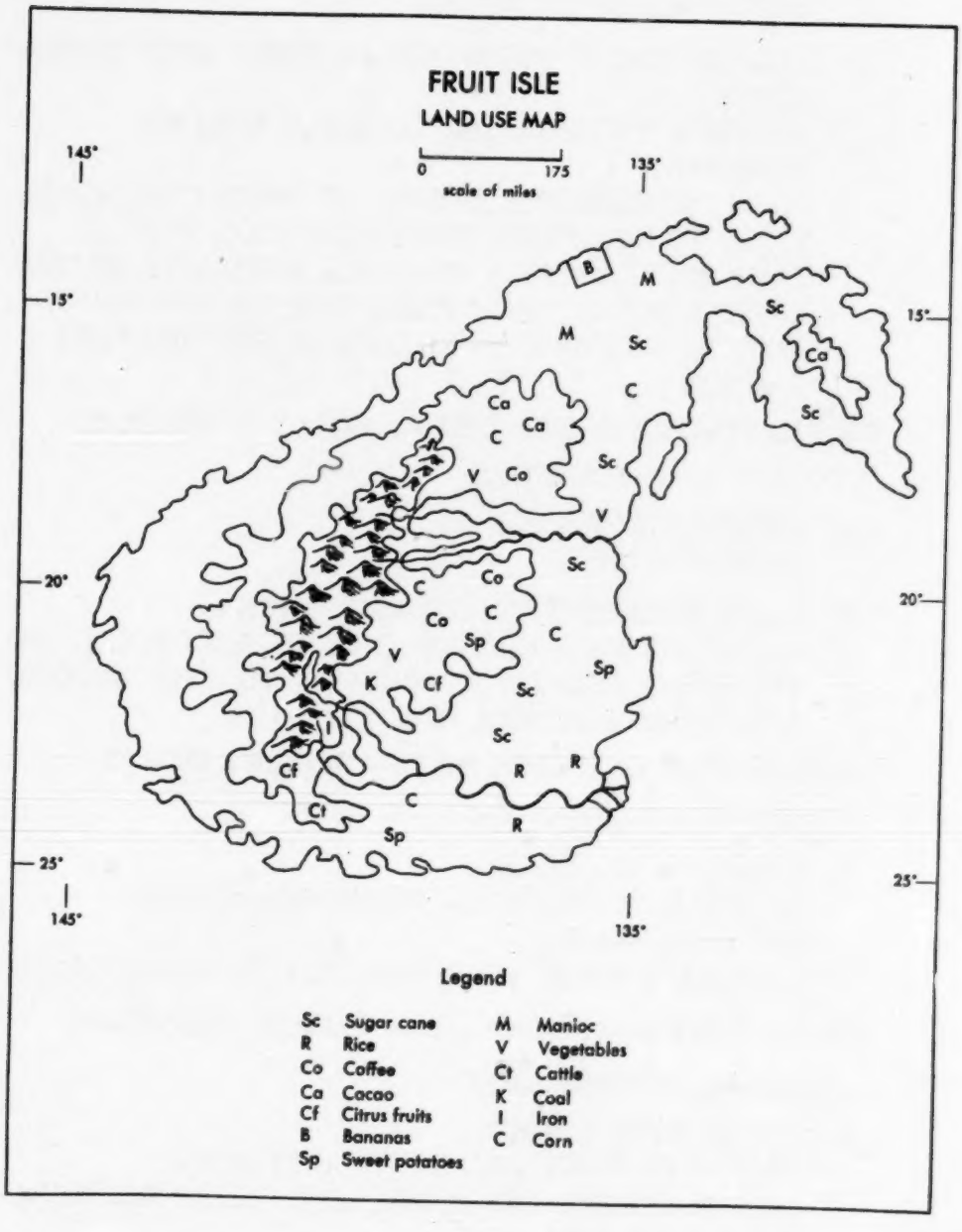
Region C. This country extends from 15° to 25° N. A high mountain range in the southwest extends northwest and southeast. North of the range is a wide plateau which slopes gently to a plain.

We have attempted to provide a rationale for learning experiences and how they might be implemented in a nongraded school. The strategies discussed permit children to work at various levels; yet they are engaged in working with the same general content.

Now let us examine specific skills related to the social studies and how they might be ordered without grade boundaries, but sequently. The suggestion that follows is not to be conceived as a proposed sequence for a specific school; it is merely a suggested pattern. The actual ordering of these skills should be based upon an understanding of the children who will be utilizing them. Another word

of caution: children may be at a high level in one skill but might not be at the same level in another skill. The skills that follow are based on those suggested by Eunice Johns and Dorothy McClure Fraser in the appendix of the 33rd year book of the National Council for the Social Studies.[6]




FRUIT ISLE
LAND USE MAP
0
175
scale of miles
145°
135°
15°
20°
25°
Legend
Sc Sugar cane
R Rice
Co Coffee
Ca Cacao
Cf Citrus fruits
B Bananas
Sp Sweet potatoes
M Manioc
V Vegetables
Ct Cattle
K Coal
I Iron
C Corn

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

1. LOCATING INFORMATION
   A. WORK WITH BOOKS
      USE TITLE OF BOOKS AS GUIDE TO CONTENT
      USE TABLE OF CONTENTS
   B. GATHER FACTS FROM FIELD TRIPS AND INTERVIEWS
      IDENTIFY THE PURPOSE OF FIELD TRIP OR INTERVIEW
      PLAN PROCEDURES, RULES, OF BEHAVIOR, QUESTIONS TO BE ASKED, THINGS TO LOOK FOR
      TAKE INCREASINGLY GREATER INITIATIVE IN THE ACTUAL CONDUCT OF FIELD TRIP OR INTERVIEW
      RECORD, SUMMARIZE, EVALUATE INFORMATION GAINED

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

1. LOCATING INFORMATION
   A. WORK WITH BOOKS
      ALPHABETIZE
   B. MAKE EFFICIENT USE OF DICTIONARY
      ALPHABETIZE A LIST OF WORDS ACCORDING TO THE FIRST LETTER, ACCORDING TO THE SECOND AND THIRD LETTERS, ETC.

SOCIAL STUDIES CHECK LIST — SKILLS LEVEL 3.

1. LOCATING INFORMATION
   A. WORK WITH BOOKS
      DISTINGUISH BETWEEN STORY BOOKS AND FACTUAL BOOKS
      CHOOSE A BOOK APPROPRIATE FOR THE PURPOSE

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 4.

1. LOCATING INFORMATION
   A. WORK WITH BOOKS
      USE TITLE PAGE AND COPYRIGHT DATE
      USE GLOSSARY, APPENDIX, MAP, LISTS, ILLUSTRATION LISTS, ETC.
   B. MAKE EFFICIENT USE OF THE DICTIONARY
      USE GUIDE WORDS

LEARN CORRECT PRONUNCIATION OF A WORD
UNDERSTAND SYLLABICATION
CHOOSE THE APPROPRIATE MEANING OF THE WORD FOR THE CONTEXT IN WHICH IT IS USED

C. READ NEWSPAPERS, MAGAZINES, AND PAMPHLETS WITH DISCRIMINATION
RECOGNIZE THESE MATERIALS AS SOURCES OF INFORMATION ABOUT MANY TOPICS, ESPECIALLY CURRENT AFFAIRS

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 5.

1. LOCATING INFORMATION

A. FINDING INFORMATION IN ENCYCLOPEDIAS AND OTHER REFERENCE BOOKS
LOCATE INFORMATION IN AN ENCYCLOPEDIA BY USING KEY WORDS, LETTERS ON VOLUME
USE REFERENCE WORKS SUCH AS WORLD ALMANAC AND ATLASES

B. READ NEWSPAPERS, MAGAZINES, AND PAMPHLETS WITH DISCRIMINATION
SELECT IMPORTANT NEWS ITEMS
SELECT FROM THESE SOURCES MATERIAL THAT IS PERTINENT TO CLASS ACTIVITIES
LEARN ABOUT SECTIONS OF THE NEWSPAPER

C. KNOW HOW TO FIND MATERIAL IN A LIBRARY, BOTH SCHOOL AND PUBLIC
LOCATE APPROPRIATE BOOKS
USE A BOOK CARD

1. LOCATING INFORMATION

(1) BOOK LISTED THREE WAYS — SUBJECT, AUTHOR, TITLE

(2) ALL CARDS ARRANGED ALPHABETICALLY

(3) CARDS HAVE CALL NUMBERS IN UPPER LEFT HAND CORNER WHICH INDICATE LOCATION ON THE SHELF

(4) SOME AUTHOF CARDS GIVE MORE INFORMATION THAN THE TITLE OR SUBJECT CARD

(5) INFORMATION SUCH AS PUBLISHER, DATE OF PUBLICATION, NUMBER OF PAGES AND ILLUSTRATIONS, AND USUALLY SOME ANNOTATION ARE PROVIDED

(6) THE DEWEY DECIMAL SYSTEM IS A KEY TO FINDING BOOKS

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 6.

1. LOCATING INFORMATION

A. READ NEWSPAPERS, MAGAZINES, AND PAMPHLETS WITH DISCRIMINATION
LEARN THE ORGANIZATION OF A NEWSPAPER AND HOW TO USE THE INDEX
RECOGNIZE THE DIFFERENCES IN PURPOSE AND COVERAGE OF DIFFERENT MAGAZINES, PAPERS AND PAMPHLETS

B. KNOW HOW TO FIND MATERIAL IN A LIBRARY, BOTH SCHOOL AND PUBLIC
USE **THE READERS GUIDE TO PERIODICAL LITERATURE** AND OTHER INDEXES

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 1.

II. ORGANIZING INFORMATION

A. ARRANGED FACTS, EVENTS, AND IDEAS IN A SEQUENCE

B. COMPOSE A TITLE FOR A STORY, PICTURE, MAP, OR CHART

C. SELECT ANSWERS TO QUESTIONS FROM MATERIAL HEARD, VIEWED OR READ

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

II. ORGANIZING INFORMATION

A. MAKE AN OUTLINE OF TOPICS TO BE INVESTIGATED AND SEEK MATERIAL ABOUT EACH MAJOR POINT, USING MORE THAN ONE SOURCE

B. SELECT THE MAIN IDEA AND SUPPORTING FACTS

C. WRITE A SUMMARY OF MAIN POINTS ENCOUNTERED IN MATERIAL

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 4.

II. ORGANIZING INFORMATION

A. TAKE NOTES MAKING A RECORD OF THE SOURCE BY AUTHOR, TITLE, PAGE

B. MAKE A BIBLIOGRAPHY

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 1.

III. EVALUATING INFORMATION

A. DISTINGUISH BETWEEN FACT AND FICTION

B. DRAW INFERENCES AND MAKE GENERALIZATIONS FROM EVIDENCE

C. REACH TENTATIVE CONCLUSIONS

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

III. EVALUATING INFORMATION

A. COMPARE INFORMATION ABOUT A TOPIC DRAWN FROM TWO OR MORE SOURCES TO RECOGNIZE AGREEMENT OR CONTRADICTION

B. CONSIDER WHICH SOURCE OF INFORMATION IS MORE ACCEPTABLE AND WHY

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 4

III. EVALUATING INFORMATION

A. EXAMINE REASONS FOR CONTRADICTIONS, OR SEEMING CONTRADICTIONS IN EVIDENCE

B. EXAMINE MATERIAL FOR CONSISTENCY, REASONABLENESS, AND FREEDOM FROM BIAS

C. RECOGNIZE PROPAGANDA AND ITS PURPOSES IN A GIVEN CONTEXT

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 3

III. EVALUATING INFORMATION

A. DISTINGUISH BETWEEN FACT AND OPINION

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 1

IV. ACQUIRING INFORMATION THROUGH READING

A. READ TO FIND ANSWERS TO QUESTIONS

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

IV. ACQUIRING INFORMATION THROUGH READING

A. SELECT THE STATEMENTS THAT ARE PERTINENT TO THE TOPIC BEING STUDIED

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 3

IV. ACQUIRING INFORMATION THROUGH READING

A. MAKE USE OF HEADINGS, TOPIC SENTENCES

B. SKIM TO FIND A PARTICULAR WORD, GET A GENERAL IMPRESSION, OR LOCATE SPECIFIC INFORMATION

C. CONSCIOUSLY EVALUATE WHAT IS READ

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 1

V. ACQUIRING INFORMATION THROUGH LISTENING AND OBSERVING

A. LISTEN AND OBSERVE WITH A PURPOSE

B. LISTEN ATTENTIVELY WHEN OTHERS ARE SPEAKING

C. ADJUST TO SPEAKERS VOICE AND DELIVERY AND TO THE PHYSICAL CONDITIONS OF THE SITUATION

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

V. ACQUIRING INFORMATION THROUGH LISTENING AND OBSERVING

IDENTIFY A SEQUENCE OF IDEAS AND SELECT THOSE THAT ARE MOST IMPORTANT

RELATE, COMPARE, AND EVALUATE INFORMATION GAINED THROUGH LISTENING AND OBSERVING WITH THAT GAINED FROM OTHER SOURCES OF INFORMATION

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 3

V. ACQUIRING INFORMATION THROUGH LISTENING AND OBSERVING

A. RESERVE JUDGMENT UNTIL THE SPEAKER'S ENTIRE PRESENTATION HAS BEEN HEARD

B. TAKE NOTES WHILE CONTINUING TO LISTEN AND OBSERVE

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 4

V. ACQUIRING INFORMATION THROUGH LISTENING AND OBSERVING

A. ANALYZE VIDEO AND AUDIO PRESENTATIONS, E.G., FILMS, PICTURES, MODELS, EXHIBITS AND OTHER GRAPHIC MATERIALS CONCERNED WITH SOCIAL STUDIES TOPICS

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 1

VI. COMMUNICATING ORALLY AND IN WRITING

A. SPEAK WITH ACCURACY AND WITH POISE

1. DEVELOP AN ADEQUATE VOCABULARY
2. CHOOSE THE APPROPRIATE WORD
3. PRONOUNCE WORDS CORRECTLY AND ENUNCIATE CLEARLY
4. TALK IN SENTENCES
5. DEVELOP SELF CONFIDENCE

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

VI. COMMUNICATING ORALLY IN WRITING

A. SPEAK WITH ACCURACY AND WITH POISE

1. KEEP TO THE POINT IN ALL SITUATIONS INVOLVING ORAL EXPRESSION
2. EXCHANGE IDEAS THROUGH DISCUSSION, EITHER AS LEADER OR PARTICIPANT
3. RESPECT LIMITATIONS OF TIME AND THE RIGHT OF OTHERS TO BE HEARD

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 3

VI COMMUNICATING ORALLY AND IN WRITING

A. SPEAK WITH ACCURACY AND POISE

1. PREPARE AND USE NOTES IN PRESENTING AN

ORAL REPORT, GIVING CREDIT WHEN MATERIAL IS QUOTED

2. APPLY THE SKILLS BEING DEVELOPED IN PRINTING, WRITING, SPELLING, PUNCTUATING, CAPITALIZING AND ARRANGING WRITTEN WORK

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 4

VI. COMMUNICATING ORALLY AND IN WRITING
WRITE WITH CLARITY AND EXACTNESS

1. WRITE INDEPENDENTLY, AVOIDING COPYING FROM REFERENCES
2. INCLUDE A BIBLIOGRAPHY TO SHOW SOURCE OF REFERENCE
3. COLLECT, EVALUATE, AND ORGANIZE INFORMATION AROUND A CLEARLY DEFINED TOPIC

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 5

VI. COMMUNICATING ORALLY AND IN WRITING

A. WRITE WITH CLARITY AND EXACTNESS

1. GIVE CREDIT FOR QUOTED MATERIAL
2. INCLUDE FOOTNOTES WHEN NECESSARY
3. PROOFREAD AND REVISE

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 1

VII. INTERPRETING PICTURES, CHARTS, GRAPHS, TABLES

A. INTERPRET PICTORIAL MATERIALS

1. RECOGNIZE THESE MATERIALS AS SOURCES OF INFORMATION
2. NOTE AND DESCRIBE THE CONTENT OF THE MATERIAL, BOTH GENERAL AND SPECIFIC
3. INTERPRET BY APPLYING RELATED INFORMATION, AND USE THE MATERIAL AS ONE BASIS FOR DRAWING CONCLUSIONS

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

VII. INTERPRETING PICTURES, CHARTS, GRAPHS AND TABLES

A. STUDY GRAPHS AND TABLES

1. UNDERSTAND THE SIFNIFICANCE OF THE TITLE
2. DETERMINE THE BASIS ON WHICH THE GRAPH OR TABLE IS BUILT AND THE UNITS OF MEASURE INVOLVED
3. INTERPRET RELATIONSHIPS SHOWN
4. DRAW INFERENCES BASED ON DATA

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 3

VII. INTERPRETING PICTURES, CHARTS, GRAPHS, TABLES

A. INTERPRET CARTOONS

1. RECOGNIZE THESE MATERIALS AS EXPRESSING A POINT OF VIEW AND INTERPRET THE VIEW EXPRESSED
2. NOTE AND INTERPRET THE COMMON SYMBOLS USED IN CARTOONS

B. STUDY CHARTS

1. UNDERSTAND THE STEPS IN DEVELOPMENT INDICATED
2. TRACE THE STEPS IN THE PROCESS SHOWN
3. COMPARE THE SIZES AND QUANTITIES
4. ANALYZE THE ORGANIZATION OR STRUCTURE
5. IDENTIFY ELEMENTS OF CHANGE

C. STUDY GRAPHS AND TABLES

1. CONSTRUCT SIMPLE GRAPHS, CHARTS, TABLES, AND OTHER PICTORIAL MATERIALS (INCLUDING CARTOONS)
2. RELATE INFORMATION DERIVED FROM PICTURES, CHARTS, GRAPHS, AND TABLES WITH THAT GAINED FROM OTHER SOURCES

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 1

INTERPRETING MAPS AND GLOBES

A. ORIENT THE MAP AND NOTE DIRECTIONS

1. USE RELATIVE TERMS OF LOCATION AND DIRECTION, AS NEAR, FAR, BELOW, ABOVE, UP, DOWN
2. UNDERSTAND THAT NORTH IS TOWARD THE NORTH POLE AND SOUTH IS TOWARD THE SOUTH POLE ON ANY MAP PROJECTION
3. USE CARDINAL DIRECTIONS IN CLASSROOM AND NEIGHBORHOOD

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

INTERPRETING MAPS AND GLOBES

A. ORIENT THE MAP AND NOTE DIRECTION

1. USE INTERMEDIATE DIRECTIONS, AS NORTHEAST, NORTHWEST, ETC.
2. USE CARDINAL DIRECTIONS AND INTERMEDIATE DIRECTIONS IN WORKING WITH MAPS

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 3

INTERPRETING MAPS AND GLOBES

A. ORIENT THE MAP AND NOTE DIRECTIONS
1. ORIENT DESK OUTLINE, TEXTBOOK, AND ATLAS MAPS CORRECTLY TO THE NORTH

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 4

INTERPRETING MAPS AND GLOBES

A. ORIENT THE MAP AND NOTE DIRECTIONS

1. CONSTRUCT SIMPLE MAPS WHICH ARE PROPERLY ORIENTED AS TO DIRECTIONS
2. USE PARALLELS AND MERIDIANS IN DETERMINING DIRECTION
3. USE DIFFERENT MAP PROJECTIONS TO LEARN HOW THE PATTERN OF MERIDIANS AND THAT OF PARALLELS DIFFER

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 1

INTERPRETING MAPS AND GLOBES

B. LOCATE PLACES ON MAPS AND GLOBES

1. LEARN TO MAKE SIMPLE SKETCH MAPS TO SHOW LOCATION
2. RECOGNIZE LAND AND WATER MASSES ON A SIMPLE GLOBE

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

INTERPRETING MAPS AND GLOBES

B. LOCATE PLACES ON MAPS AND GLOBES

1. RECOGNIZE LAND AND WATER MASSES ON VARIOUS GLOBES AND ON A VARIETY OF MAPS, PHYSICAL, POLITICAL, CHALKBOARD, WEATHER, ETC.
2. USE A HIGHWAY MAP FOR LOCATING PLACES BY NUMBER AND KEY-SYSTEM; PLAN A TRIP USING DISTANCE, DIRECTION AND LOCATION
3. TRACE ROUTES OF TRAVEL BY DIFFERENT MEANS OF TRANSPORTATION

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 3

INTERPRETING MAPS AND GLOBES

B. LOCATE PLACES ON MAPS AND GLOBES

1. READ MAPS OF VARIOUS TYPES WHICH SHOW ELEVATION
2. IDENTIFY ON A GLOBE AND ON A MAP OF THE WORLD, THE EQUATOR, TROPICS, (CANCER & CAPRICON), CIRCLES, CONTINENTS, OCEANS, LARGE ISLANDS
3. RECOGNIZE THE HOME CITY AND STATE ON A MAP OF THE UNITED STATES AND ON A GLOBE

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 4

INTERPRETING MAPS AND GLOBES

B. LOCATE PLACES ON MAPS AND GLOBES

1. RELATE LOW LATITUDES TO THE EQUATOR AND HIGH LATITUDES TO THE POLAR REGIONS
2. INTERPRET ABBREVIATIONS COMMONLY FOUND ON MAPS

3. USE VOCABULARY AND KEY ACCURATELY
4. IDENTIFY TIME ZONES OF THE UNITED STATES AND CANADA AND RELATE THEM TO LONGITUDE
5. USE AN ATLAS TO LOCATE PLACES
6. RECOGNIZE MAJOR CITIES OF THE WORLD WITH RESPECT TO THEIR PHYSICAL SETTING
7. DEVELOP A VISUAL IMAGE OF MAJOR COUNTRIES, LAND FORMS, AND OTHER MAP PATTERNS STUDIED
8. ESTIMATE DISTANCES ON A GLOBE USING LATITUDE; ESTIMATE AIR DISTANCES BY USING A TAPE OR A STRING TO MEASURE GREAT CIRCLE ROUTES
9. UNDERSTAND AND USE MAP SCALE EXPRESSED AS REPRESENTATIVE FRACTION, STATEMENT OF SCALE.

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 5

INTERPRETING MAPS AND GLOBES

B. LOCATE PLACES ON MAPS AND GLOBES

1. CONSULT TWO OR MORE MAPS TO GATHER INFORMATION ABOUT THE SAME AREA
2. UNDERSTAND THE REASON FOR THE INTERNATIONAL DATE LINE
3. UNDERSTAND THE SIGNIFICANCE OF RELATIVE LOCATION AS IT HAS AFFECTED NATIONAL POLICY

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 1

INTERPRETING MAPS AND GLOBES

C. USE SCALE AND COMPUTE DISTANCES

1. USE SMALL OBJECTS TO REPRESENT LARGE ONES, AS A PHOTOGRAPH COMPARED TO ACTUAL SIZE

2. MAKE SIMPLE LARGE SCALE MAPS OF FAMILIAR AREA, SUCH AS CLASSROOM, NEIGHBORHOOD, ETC.

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

INTERPRETING MAPS AND GLOBES

C. USE SCALE TO COMPUTE DISTANCES

1. DEVELOP THE HABIT OF CHECKING THE SCALE ON ALL MAPS USED
2. COMPARE ACTUAL LENGTH OF A BLOCK OR A MILE WITH THAT SHOWN ON A LARGE SCALE MAP
3. COMPARE MAPS OF DIFFERENT SIZE OF THE SAME AREA

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 3

INTERPRETING MAPS AND GLOBES

C. USE SCALE AND COMPUTE DISTANCES

1. UNDERSTAND AND USE MAP SCALE EXPRESSED AS REPRESENTATIVE FRACTION
2. COMPUTE DISTANCE BETWEEN TWO POINTS ON MAPS OF DIFFERENT SCALE
3. ESTIMATE DISTANCES ON A GLOBE, USING LATITUDE; ESTIMATE AIR DISTANCES BY USING TAPE OR STRING TO MEASURE GREAT CIRCLE ROUTES
4. COMPARE MAPS OF DIFFERENT AREAS TO NOTE THAT A SMALLER SCALE MUST BE USED TO MAP LARGER AREAS

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 1

INTERPRETING MAPS AND GLOBES

D. INTERPRET MAP SYMBOLS AND VISUALIZE WHAT THEY REPRESENT

1. UNDERSTAND THAT REAL OBJECTS CAN BE REPRESENTED BY PICTURES OR SYMBOLS ON A MAP

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

INTERPRETING MAPS AND GLOBES

D. INTERPRET MAP SYMBOLS AND VISUALIZE WHAT THEY REPRESENT

1. LEARN TO USE LEGENDS ON DIFFERENT KINDS OF MAPS
2. IDENTIFY SYMBOLS USED FOR WATER FEATURES, LEARN THE SOURCE, MOUTH, DIRECTION OF FLOW, DEPTHS, OCEAN CURRENTS

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 3

INTERPRETING MAPS AND GLOBES

D. INTERPRET MAP SYMBOLS AND VISUALIZE WHAT THEY REPRESENT

1. INTERPRET DOTS, LINES, COLORS, AND OTHER SYMBOLS USED IN ADDITION TO PICTORIAL SYMBOL

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 4

INTERPRETING MAPS AND GLOBES

D. INTERPRET MAP SYMBOLS AND VISUALIZE WHAT THEY REPRESENT

1. STUDY COLOR CONTOUR AND VISUAL RELIEF MAPS AND VISUALIZE THE NATURE OF THE AREAS SHOWN
2. INTERPRET THE ELEVATION OF THE LAND FROM THE FLOW OF RIVERS

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 5

INTERPRET MAPS AND GLOBES

D. INTERPRET MAP SYMBOLS AND VISUALIZE WHAT THEY REPRESENT

1. USE ALL PARTS OF A WORLD ATLAS

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 1

UNDERSTANDING TIME AND CHRONOLOGY

A. DEVELOP AN UNDERSTANDING OF THE TIME SYSTEM AND THE CALENDAR

1. LEARN TO TELL TIME BY THE CLOCK
2. USE NAMES OF THE DAYS OF THE WEEK IN ORDER

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

UNDERSTANDING TIME AND CHRONOLOGY

A. DEVELOP AN UNDERSTANDING OF THE TIME SYSTEM AND THE CALENDAR

1. USE CALENDAR TO FIND DATES OF SPECIAL EVENTS AND TO DETERMINE LENGTH OF TIME BETWEEN IMPORTANT DATES
2. ASSOCIATE SEASONS WITH PARTICULAR MONTHS IN BOTH NORTHERN AND SOUTHERN HEMISPHERES
3. USE SUCH INDEFINITE TIME CONCEPTS AS PAST, FUTURE, LONG AGO, BEFORE, AFTER, MEANWHILE

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 3

UNDERSTANDING TIME AND CHRONOLOGY

DEVELOP AN UNDERSTANDING OF THE TIME SYSTEM AND THE CALENDAR

1. UNDERSTAND THE RELATION BETWEEN ROTATION OF THE EARTH AND DAY AND NIGHT
2. UNDERSTAND THE SYSTEM OF TIME ZONES AS RELATED TO THE ROTATION OF THE EARTH
3. UNDERSTAND THE RELATION BETWEEN THE EARTH'S REVOLUTION AROUND THE SUN AND A CALENDAR YEAR
4. ACCUMULATE SOME SPECIFIC DATE-EVENTS AS POINTS OF ORIENTATION IN TIME

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 4

UNDERSTANDING TIME AND CHRONOLOGY

A. DEVELOP AN UNDERSTANDING OF THE TIME SYS-

TEM AND THE CALENDAR

1. COMPREHEND THE CHRISTIAN SYSTEM OF CHRONOLOGY — B. C. AND A. D.
2. USE VOCABULARY OF DEFINITE AND INDEFINITE TIME EXPRESSIONS
3. USE SUCH DEFINITE TIME CONCEPTS AS SECOND, MINUTE, YESTERDAY, DECADE, CENTURY

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 5

UNDERSTANDING TIME AND CHRONOLOGY

A. DEVELOP AN UNDERSTANDING OF THE TIME SYSTEM AND THE CALENDAR
   1. ACQUIRE A SENSE OF PREHISTORIC AND GEOLOGICAL TIME
   2. LEARN TO TRANSLATE DATES INTO CENTURIES

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 1

UNDERSTANDING TIME AND CHRONOLOGY

B. DEVELOP AN UNDERSTANDING OF EVENTS AS PART OF A CHRONOLOGICAL SERIES OF EVENTS AND AN UNDERSTANDING OF THE DIFFERENCES IN DURATION OF VARIOUS PERIODS OF TIME
   1. RECOGNIZE SEQUENCE OF CHRONOLOGY IN PERSONAL EXPERIENCES, AS THE SCHOOL DAY, WEEKLY SCHEDULE, ETC.
   2. LEARN TO ARRANGE PERSONAL EXPERIENCES IN ORDER
   3. COMPREHEND SEQUENCE AND ORDER AS EXPRESSED IN FIRST, SECOND, THIRD, ETC.

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 2

UNDERSTANDING TIME AND CHRONOLOGY

B. DEVELOP AN UNDERSTANDING OF EVENTS AS PART OF A CHRONOLOGICAL SERIES OF EVENTS AND AN UNDERSTANDING OF THE DIFFERENCES IN DURATION OF VARIOUS PERIODS OF TIME

1. LEARN TO THINK OF THE SEPARATION OF AN EVENT FROM THE PRESENT IN ARITHMETICAL TERMS
2. LEARN TO FIGURE THE LENGTH OF TIME BETWEEN TWO GIVEN DATES
3. UNDERSTAND AND MAKE SIMPLE TIME LINES

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 3

UNDERSTANDING TIME AND CHRONOLOGY

B. DEVELOP AN UNDERSTANDING OF EVENTS AS PART OF A CHRONOLOGICAL SERIES OF EVENTS AND AN UNDERSTANDING OF THE DIFFERENCES IN DURATION OF VARIOUS PERIODS OF TIME

1. USE A FEW CLUSTER DATES EVENTS TO ESTABLISH TIME RELATIONSHIPS AMONG HISTORIC EVENTS
2. LEARN TO RELATE THE PAST TO THE PRESENT IN THE STUDY OF CHANGE AND CONTINUITY IN HUMAN AFFAIRS

SOCIAL STUDIES CHECK LIST — SKILLS — LEVEL 4

UNDERSTANDING TIME AND CHRONOLOGY

B. DEVELOP AN UNDERSTANDING OF EVENTS AS PART OF A CHRONOLOGICAL SERIES OF EVENTS AND AN UNDERSTANDING OF THE DIFFERENCES IN DURATION OF VARIOUS PERIODS OF TIME

1. UNDERSTAND DIFFERENCES IN DURATION OF VARIOUS HISTORICAL PERIODS
2. LEARN TO FORMULATE GENERALIZATIONS AND CONCLUSIONS ABOUT TIME IN STUDYING THE DEVELOPMENT OF HUMAN AFFAIRS

To summarize what we have attempted to convey re: implementing a social studies program in a "continuous progress" or nongraded school we suggest six principles to consider when planning for continuous progress in social studies:

1. Pupils should be regrouped according to achievement, not by age or I. Q.

2. Skills and concepts should be organized as a continuous sequence without graded boundaries.
3. Content areas should be organized around major recurring ideas leading to a multi-media approach.
4. Libraries should be unscheduled and individualized.
5. Individual rates of learning should be determined by diagnosing the cognitive style of the learner.
6. Growth should be measured in terms of goals rather than norms or averages for a particular age.[7]

[1] From: **Keyhole to Knowledge Handbook** for the Clara S. Bacon Elementary School Amsterdam, New York — 1967.

[2] Sydney, Rollins, **Developing Nongraded Schools** F. E. Peacock Pub. Co. Itasca, Ill. 1968 — appendix.

[3] Sydney Rollins, from a presentation in Nyack, New York — for New York State ASCD — March 1939.

[4] Bruce, Joyce, **Strategies For Elementary Social Science Education** Science Research Associates, Chicago, 1965 pp. 252-253.

[5] Linnie B. James and La Monte Crape, **Geography For Today's Children** Appleton - Century - Crofts, New York, 1968 pp. 115-123

[6] Helen McCracken Carpenter, Editor, **Skill Development in Social Studies** 33rd Yearbook - Washington D. C. 1963 Excerpts from Appendix. Appendix pp. 313-327.

[7] Based on Osborne School's four year experience in nongrading. Osborne School — Rye, New York.

4 The New Social Studies and The Nongraded School

JOSEPH EULIE

Much uneasiness currently exists within the teaching profession. The feeling abounds that perhaps we may not be doing all that we can. One senses this in the "turned-off" and rebellious attitudes of our students, the ennui and lack of direction exhibited by many teachers, and the artificial motives for "learning" subject matter, which may or may not be relevant, by those pupils who aspire to enter college. Clearly, something is wrong with an institution which causes its members to rebel or be bored. One wonders what would happen if students were given a choice concerning which school they wished to enter. Competition may serve a fruitful purpose for it would cause us to re-examine our offerings and the way we package our product, for until now we have been serving the same menu, in the same way, to youngsters who are reluctant to join us at the banquet table. This paper proposes to re-examine the role of the social studies in a school better organized to appeal to the pupils it purports to serve.

One of the most refreshing of recent approaches to education is the nongraded school. It has been truly said that, "The nongraded school is defensible only because the graded school is indefensible. Its justification flows from its efforts to correct the instructional errors of the graded school."[1] The basic problems of the graded school arise from society's laudatory, humanitarian attempt to teach all the children of all the people. In striving to do this schools have created new problems by imposing a rigid and even outdated curriculum upon students. Trying to fit all students into the same mold is like squaring the circle; only, the results are not merely unsuccessful, but catastrophic. The rigid curriculum and lockstep pattern of the graded school have resulted in serious pedagogical and psychological problems. Each grade, for instance, has students with a wide range of abilities, making it difficult for the teacher to meet the individual needs of each student. The teacher will direct her teaching to the average student, causing weaker students to fall be-

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1 William P. McLaughlin. "The Phantom Nongraded School." **Phi Delta Kappan.** Volume 49, January 1968. pp. 248-50. Dr. McLaughlin takes a somewhat dim view of the nongraded school. His criticisms, however, are directed against those who change labels without making meaningful structural and curricular changes.

hind and insufficiently challenging the brighter pupils. Even more serious are the psychological consequences. Those students who cannot cope with the curriculum will suffer failure. Meeting with continual failure and little success has horrendous consequences for pupils whose individual abilities we purport to help develop. It is no wonder that by the time they reach secondary school many students detest education and develop poor images of their worth as human beings.

It is not enough to upgrade a school. The heart of any school is its curriculum. The term "curriculum" shall be used to mean the learning experiences which the school provides for its pupils. These learning experiences may occur in one of three ways: Schools may keep the existing rigid curriculum; they may adopt a Rousseauistic and anarchic curriculum which depends for its existence upon the whims of the child; or, they may develop a flexibly structured curriculum.

The first choice is unsupportable for the learning experiences it presents children with have done much harm. The second is unacceptable for its lacks direction and fails to include the needs of society, a proper role for the disciplines of knowledge, goals for achievement and measurement of progress made. Unfortunately, some erroneously identify this curriculum with the nongraded school. For the nongraded school to meet the needs of all its students, a flexibly structured curriculum must be developed which will permit a student to move at his own pace. It should bring together individual interest, readiness, abilities, scholarly knowledge and the needs of society.

Erasing the grade labels from classroom doors will not upgrade a school. Philosophically and in practice placement of students and instruction must change. Nearly everyone is in favor of individualizing instruction and meeting the needs, interests and abilities of all students. Nongrading pushes this to its logical conclusion. Nongrading a school will not make teaching any easier, but it can result in better instruction. Because of this, the entire staff must be committed to the philosophy of the nongraded school or, to use an even more appropriate phrase, **continuous progress. Commitment** cannot be overemphasized. Nongraded teaching is a demanding task which can only be successful if its practitioners are capable and accept the fact that nongradedness is not an **objective** but a **means** to **individualize instruction,** to enable each student to make continuous

progress at his own pace, thereby removing the stigma and psychological scars which result from failure.

Leadership and planning are basic to good teaching. In addition to the principal, the school should be divided into levels or groups corresponding to primary, intermediate, junior high, and high school. Each group must have a team leader to coordinate planning, teaching, evaluation, and movement of students during weekly sessions. The team approach improves the decision-making process and places teachers in roles which will enable them to make the best use of their talents. Some teachers will prefer to teach one topic to large groups, while others will wish to work with small groups or direct individual students. Only planning can provide flexibility and direction towards pre-determined goals. Indeed, the goals, themselves, are established by the group and **coordination** and **responsibility** are a **sine qua non** if these are to be achieved. An important by-product of the nongraded organization is evalution. During the weekly conferences each pupil's progress, teaching strategies, and the curriculum are evaluated. Continual evalution is a necessary part of sound education. Those nongraded schools which provide for leadership have superior programs.

Earlier, the idea of a flexibly structured curriculum was mentioned. This curriculum should be planned by teams of classroom teachers, educators and specialists in the social sciences. It should bring together the most recent advances in the scholarly disciplines, society's problems, and the abilities and concerns of pupils. Because these are in continual flux, curriculum revision must be an on-going process involving design, classroom implementation, evalution and redesign of the learning experiences which the curriculum is to provide students.

There are many ways to design or structure a social studies curriculum.[2] Fortuitous or not, the idea of a continuous progress curriculum agrees very well with the "new social studies." The most recent thinking in the social studies stresses teaching generalizations or big ideas, skills and the use of the inquiry or discovery approach. It is also concerned with the process of education, i.e. the manner in which things are taught as well as how they are taught.

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[2] A social studies curriculum may be organized chronologically, topically or around issues. These are but a few of the devices which have been used as a structure or focal point for learning experiences in the social studies.

The social studies curriculum should stress generalizations and skills. For too long, students have been forced to commit many often unrelated and irrelevant facts to memory. Teachers would announce that they were "covering" World War I or chapter seventeen. Social studies educators are asking teachers to organize facts, concepts, and understanding in such a way that students will be helped to understand large and significant theories or generalizations. These terms, so vital to the new social studies, deserve clarification:

A **generalization** is an hypothesis, theory or principle with more or less universal applicability. An example of a generalization drawn from social studies is: Transportation and communications are of vital importance to any society. The purpose of this or any generalization is to help the pupil understand himself and the world he lives in.

An **understanding** is drawn from the content of history and the social sciences and is used to support, modify, or reject a generalization. Some understandings which may be used to help students comprehend the significance of transportation to society would be

A. the use of waterways by the Indians
B. the importance of waterways today
C. the use of canals and steamships in the 19th century
D. the importance of the interstate highway system
E. the significance of future means of transportation.

Many understandings should be selected from diverse areas of content. They should come from contemporary events, history, other cultures and the students lives.[3] Each added understanding both broadens and deepens a student's comprehension. Moreover, comparison produces thinking and aids transference of learning as the student transposes an understanding of the role of transportation in another era to the current scene.

Concepts are ideas. They may be single words such as socialism, communication, freedom or they may be phrases such as laissez-faire. Comprehension of concepts or definitions is essential if students are to understand generalizations. **Facts** are bits of information which currently are accepted as valid. Along with concepts, facts provide the building blocks towards understandings and

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[3] Bruce Joyce. **Strategies for Elementary Social Science Education.** Chicago: Science Research Associates, Inc., 1965. pp. 121-22.

generalizations. Selecting generalizations as the structure around which learning experiences will be organized represents the promise and the challenge of social studies.

Principles, laws, and generalizations are much easier to come by in mathematics and science than in the social sciences. Unlike chemistry, social science knows few immutable laws. In the 1930's demographers believed the United States population would decline and in 1940 Hitler announced that his Reich would last a thousand years. Moreover, social scientists honestly debate over interpretations of data. Thus, much uncertainty exists concerning the findings and interpretation of data from the social sciences, for

A. The content of the social sciences is not so certain as the physical sciences and it changes rapidly.

B. Contemporary problems force us to stress different areas such as

1. Black Studies
2. International trade and inflation instead of the depression of the 1930's
3. Urban geography
4. Area Studies
5. Soon, it will be spaceography.

It should be noted that many generalizations are interdisciplinary. This is quite properly so, for teachers should select ideas, theories, and generalizations from one or more of the social sciences to help their youngsters understand themselves and contemporary concerns in their locality rather than elsewhere. It is not our task to produce junior historians, economists, or political scientists, but youngsters who can comprehend and, therefore, cope with life a little better. Just as we use facts and concepts as the means to the end, so must we select from history and the social sciences that content which will help students better understand what life is all about.

Curriculum designers stress the idea of the student as an active learner. He is considered to be a producer of knowledge. When put into practice these ideas revolutionize education for, traditionally, the teacher is considered the "teller" and the student is the "listener" who commits knowledge to memory. The student is

asked to analyze ideas such as the significance of transportation in the lives of people. Rather than tell the student about these generalizations, the teacher exposes him to many learning experiences—films, filmstrips, tapes, programmed learning, outside speakers, poems, documents, fiction, and many more, which will gradually deepen his understanding. In other words, the interaction between the pupil and the experience will bring about the desired change. Often, the student will arrive at his own, equally significant understanding. He may come to some original notions concerning the significance of transportation to the Indian tribes. Whenever a student derives meaning form a set of facts or data he has produced knowledge.

The act of inquiry or seeking out the answers to things causes a student to discover understandings for himself. Understandings arrived at in this fashion are retained longer, as are the facts learned in the process. It is the process or the way a subject is taught which will determine whether it is meaningful, interesting, develops creativity and thinking, or accomplishes nothing save arouse distaste in the learner. If we wish to make learning a more meaningful experience and have what is learned retained with greater permanence, we must teach youngsters to become producers of knowledge. They must be taught those skills which will help them question, formulate hypotheses or generalizations, use the learning center well, and evaluate data. These skills are not only important as part of the process of learning, but they are necessary to the intelligent conduct of life itself. The social studies curriculum, then, should be based on the following:

I. Generalizations
   A. Understandings
   B. Concepts
   C. Facts

II. Skills[4]
   A. Critical thinking
      1. The ability to establish hypotheses.
      2. The ability to identify the central issue.
      The ability to recognize underlying assumptions.

[4] Teachers may enlarge upon this list of skills.

4. The ability to evaluate.
5. The ability to draw conclusions.

B. Interpreting maps and globes

C. Understanding time

D. Interpreting pictures, charts, graphs and tables

E. Locating information

F. Organizing information

Because the new social studies stresses the inquiry method and the active role of the student as learner, the most imposing room in the building should be the library, which could be more aptly renamed a learning center. Continual use should be made of the learning center as pupils develop hypotheses and theories, and seek to substantiate them. Learning does not only come from books. Single concept films, tapes, filmstrips, records, overlays, programmed learning all provide reservoirs of information and belong in the learning center.

A fundamental principle of curriculum design is the need for an organizing principle, i.e. a focal point around which meaningful experiences may be selected and results evaluated. It becomes necessary to select goals in education which may be stated in behavioral terms. Teaching students the content of a textbook is nonsense. It is also ridiculous to posit as a goal the desire to instill patriotism or an appreciation of the democratic way of life, as noble as these objectives may be. Each is too vague to be teachable and measureable. Generalizations and skills are educationally sound objectives. They are meaningful, teachable, can be measured and they provide purpose and direction to the curriculum. Generalizations drawn from the academic disciplines can be taught in levels of sequential learnings (14 or more) in increasing depth. The learning experiences and understandings selected will depend upon the needs, interests, and abilities of each student.[5] It may be stated, categorically, that without a structured curriculum one does not have a means to evaluate pupil progress, because there would not be any goals for students to accomplish. It also follows that all generalizations are not equally good. What may help ghetto youngsters may not help middle class, Indian, or Eskimo children. Teachers should make up their own lists of generalizations and skills and through trial and error determine whether they should remain in the curriculum and how they should be taught.

There is actually no end to the number of generalizations which may be drawn from history and the social sciences.[6] Examples of generalizations follow:

I. History

A. Continuous and unrelenting change has been a universal condition of human society.

B. Pacts, alliances, or treaties among nations have a tendency to be of short duration.

II. Political Science

A. The power to give or withhold favors is a powerful political weapon.

B. National self-interest is the foundation of foreign policy.

III. Geography

A. Unprecedented population growth coupled with rapid expansion of industry puts a tremendous strain on all resources.

The physical environment influences but does not determine culture patterns.

IV. Sociology

A. Societal changes are interrelated in both causes and results.

B. A common language is a powerful force for the unification of a people.

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[5] Pupil populations differ between school districts and localities. Hence, teachers have selected their own generalizations, understandings, skills, and teaching strategies. An excellent example of this may be seen in the social studies curriculum developed by the staff of the Osborn Elementary School (nongraded) in Rye, New York.

[6] An excellent beginning source is the six volume, paperbacked series edited by Raymond Muessig and Vincent Rogers entitled, **Social Science Seminar Series,** from Charles E. Merrill. Columbus, Ohio, 1965. I am in debt for many of these generalizations to this series and to the New York State Social Studies Syllabus, Bureau of Secondary Curriculum Development of The State Education Department—University of the State of New York, Albany, New York, 1966.

V. Anthropology

A. People living in groups develop a unique culture.

B. Traditional societies may adopt the outward forms of another culture without accepting its basic values.

VI. Economics

A. The basic problem of scarcity underlies all economic problems.

B. The limited nature of productive resources makes it imperative that a society identify its economic objectives.

Though the wording of some of these generalizations may seem formidable to young children, the simple fact is that each of these generalizations may be taught from kindergarten to college. What is needed is analization and the selection of content and teaching strategies. The economic generalization concerning the problem of scarcity will serve for illustrative purposes. "By "scarcity" the economist means that the desires or wants of people tend to be greater than the means of society to satisfy them. Consequently, we are always faced with the need to choose among all the things we wish to have. Little children are faced with this problem when they receive some money. Adolescents are confronted with it as are parents, village boards, businessmen, wealthy individuals, poor nations and rich nations. It underlies the entire issue concerning priorities in national expenditures. Upon selecting these generalizations, teachers must develop a list of understandings, concepts and teaching strategies to form levels of sequential learnings which will enable each student to explore the significance of this generalization in accordance with his ability to cope with the material.

Nongrading is philosophically and psychologically sound. It is philosophically sound for it seeks to help each child develop his unique capabilities as he strives to adjust to the demands of society. It is psychologically sound for it enables each student to achieve success as he matures physically, emotionally, socially and in understanding of himself. The continuous progress curriculum avoids the present "star" centered school which treats the world of learning as a battle field or sports arena wherein only the champions emerge with glory. School is for all children and it is what we do to them that counts. When what we are doing has deleterious consequences,

new approaches must be found. Nongradedness is one of these, only it demands committed teachers, administrative leadership and a flexibly structured curriculum, designed in the social studies around generalizations and skills.

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5 Organizing The Nongraded Primary School

SISTER BERNARDA BOCKRATH

What is a nongraded primary? Well, first of all it is an administrative device. It embraces the traditional first, second, and third grades whereby children of these grade levels are grouped together for common instructional purposes. They are grouped together in classes that have no grade designation but levels of achievement.

A nongraded school is a school that has continuous progress; it promotes flexibility in grouping by the device of removing grade levels. It is designed to facilitate the teacher's role in providing for individual differences in pupils and it eliminates the question, "Should I promote or should I not promote?" You don't have this problem. There is no promotion year after year; there is instead continuous progress. So the rationale for the ungraded organization is this: The school program should be flexible enough to meet the varying developmental needs and growth patterns for individual children.

Learning should be continuous and cumulative. Ignorance is also continuous and cumulative. Many of our youngsters, by the time they have gotten to the sixth, seventh, and eighth grades have accumulated an awful lot of ignorance. So, while learning is cumulative, so is ignorance. Each child should have the opportunity to achieve at his own rate.

Another rationale we want to establish is that greater achievement occurs when children experience success. This is true of us as adults just as well as it is true of children. Success encouraged us to go on. When children fail a class, too often they don't fail; we fail them, by not teaching them at a level at which they can achieve. We don't seem to consider the tremendous harm we are doing these children by putting them into situations where they continuously meet failure. Nobody can be happy with failure. There is always frustration.

I think that we recognize the fact that there are individual differences. In fact, we've recognized the fact too long; but we haven't done anything about the fact that we recognized it. I think this is what we want to do when we move into nongradedness—recognize individual differences and do something about them!

A nongraded school is composed of levels rather than grades. I am convinced that particularly in skill subjects, we have to know what we are teaching, so that we can test children to be sure that they have learned what we have taught. So in our system, in place of the three grades, we have eight levels of skills.

What is a level? A level is a group of sequential skills to be mastered by each child. So you as teachers, your entire staff, have to get together and decide what skills you want taught at each level. We have given our levels the names of A, B, C, and so forth. At each level we know what we are to teach and we know what each child is to learn. For too long children have been exposed to teaching rather than learning, for we have not been at all sure that they have learned what we have taught. By setting up specific levels of skills and testing each level of skills to see if the child has mastered these skills, we are assuring the child of definite achievement.

For years schools have considered 65 or 70 as being the "passing mark". What does "passing" mean? When we deal with this kind of a concept in schools, we are in a sense perpetuating mediocrity. A child who gets 65 or 70 is a very mediocre student. He is a very mediocre achiever. He is not doing well, and still, if he "passes" he goes on. On to what? What can he build on? By establishing levels of skills, we are determined that children will **master** these skills, but we are not concerned that this be done in a specified amount of time.

Many teachers suffer from what one can call an agenda anxiety. A teacher has many things to "get in" this year and he is determined to get it in. Actually, in June, many of us end on a solo flight. Nobody is with us any more. We have gone straight ahead determined to cover what we have set out to cover without any idea of who is with us any more. So, put aside all agenda-anxiety and be concerned only with what the children are able to learn.

Many times a teacher builds her own self-concept on how far she gets in the material. In supervising schools you meet this in teachers. They will meet you at the door and tell you, "I'm only so far, but these are awfully poor children." A supervisor does not care how far anybody is in his book but is really concerned about how well the children are learning what they are being taught. This is the thing that all of us should be interested in.

Progress in the nongraded primary is based on certain assumptions, and I would simmer them down to three: First, children are

not the same when they enter school. We have to recognize differences, and as I said before, not only recognize them, but do something about them.

Secondly, children cannot learn at the same rate; therefore, we don't teach them at the same rate. Often when you begin to talk about nongrading, and you talk about grouping, people will say, "We already group. So what's different?" There's a big difference if I may point this out—as long as you are in a graded situation you still have hanging over you "what I ought to cover" and if you are really honest with yourself you are going faster with some groups than you should be. But your concern is: "What will that second grade teacher think about me if I don't get this material covered." If you're in second grade, you worry about what the third grade teacher is going to think, and so on. Therefore, if you have very bright youngsters in your classes, you really don't know how bright some of them are because you have never challenged them to find out. You keep them going at a steady pace, because you cannot get into the next teacher's class to get any material from her. Her complaint would be "What am I going to give them when they come into my room if you move ahead?" So you don't move ahead. You just keep going at a nice steady pace, by keeping them busy somehow—giving them more of the same. I would venture to say that there are many children in our classroom whom we really don't know how well they can do—nor do they, because we are content to have them perform at grade levels.

Because children cannot learn at the same rate, some of them are going to need more time; they need more periods of assimilation. These periods of assimilation are important. It looks as if nothing is happening but a lot of knitting together is taking place in a child. We can not keep "pouring in" new things at this time. In these periods of assimilation you don't ring a bell and say: "All right, let's all assimilate". It doesn't work that way! This is up to the individual child's growth pattern, and in a non-graded school you can make adjustments, as the child needs adjustments from group to group.

Thirdly, children do not progress and develop at the same rate. They all have different rates of progress and development, and this even changes within each child. Interestingly enough, children can move steadily at a rapid pace and then, all of a sudden, they slow down. They have to be adjusted to another group. And so you keep your groups very flexible.

There is one theory of progress in a nongraded school, and that is continuous progress. There is no repetition, which is a big thing. Repetition can be very boring. Have you ever had a child repeat a grade? At the beginning of the year there is a segment of the grade material that he already knows. What does he do during that time? He knows this, so he is not going to be paying attention. In other words, he develops very unwholesome study habits, and when he gets to the part where he really needs to buckle down and pay attention, he is lost. History repeats itself. You don't spend more time at this period than you did last year. You keep going at your steady rate, but it is precisely at this point that child needs more time to master content.

Time becomes a very precious element throughout nongraded philosophy. Time doesn't cost anybody anything. And still it is the one thing we deny students when we keep them pressured in a blocked and timed curriculum year by year. We don't give them enough time to age and mature to a mellowness at which point they can learn, and this, I think, is something we have to become convinced of—to give children time to learn and to give them enough time at the time that they need it.

A characteristic feature of the ungraded primary would be, of course, this flexibility. Flexibility means a great deal to you as a teacher. It means a great deal to the child as a student. To you it means that you must be conscious of every child in your classroom.

There are times when we teach classes or groups and we are not conscious of the individual child. But once you get caught up with nongraded philosophy, you become conscious of each child within the group and you become concerned about the learning problems of the individual children. This, I think, is one of the biggest things that happens to you as a teacher. You are concerned with each child, Each child becomes someone whom you are interested in, and someone whom you prepare for day by day. You are conscious, therefore, of each child's strength and weaknesses and can work for his benefit. You can teach this child at his instructional level.

Another thing that flexibility does is to free children from the boredom of doing work which is no challenge. You can provide challenging work for them. They are able to forge ahead, and you are able to allow them to go ahead in a nongraded situation. We do not know how many children we have not challenged because we haven't been concerned about them. We have been concerned primarily with the group. This is the group we have been teaching. We

have neglected those students on the faster-learning end. We have neglected those on the slower-learning end. And so this flexibility certainly benefits the children in both areas.

Another feature of the nongraded primary school would be the freedom of teachers from many pressures. Think momentarily of how many pressures are exerted on you in a graded school. Or do you have any pressures? Do you worry about promotions—worry that you must get this child through this year well enough to "pass." Do you worry that you will have trouble with the parents? Yes, this is a pressure on you. What other pressure do you have? The pressure of the curriculum, of the textbooks. There are pressures from other teachers and from the principal?

In order to establish a nongraded school, the principal, first of all, has to be convinced of the nongraded philosophy or continuous progress philosophy as well as every teacher on the staff. Don't think of going into a nongraded situation until every teacher on the staff is properly orientated and convinced and enthused. This is a situation where everybody has to feel attuned to this type of thinking.

Naturally, there is apprehensiveness when you contemplate a new organizational plan. In an ungraded situation you will be able to do a much better job of teaching. I can assure you of that. For the first time in your life you will really feel that you are teaching because you are able to meet the children where they need you. You just don't push youngsters any more. You guide them. You diagnose and prescribe instruction for the individual children. You no longer administer one prescription for all! In a sense, being in a nongraded school frees you from being a two by four by six teacher. A two by four by six teacher is one who is bound by the two covers of her textbook, the four walls of her classroom, and the six periods of the day, and she doesn't deviate from one of these dimensions. You have to be a teacher who cannot be measured in any form or shape. You have to be completely flexible. You never know from one year to another what group of youngsters are going to be in your classroom. You cannot sit down and figure out where you are going to be by November 1, by January 1, or by March 1. There was a time when we did this. We were so teacher-orientated and so content-orientated! Now we want to become children-orientated.

Freedom from rigid grade barriers also frees pupils from the threat of failure. At the end of the year a child doesn't have to worry about whether or not he is going to make it. Children are worried to death because they have been pressured from home. Another thing freedom from rigid grade barriers does is to free the parents from wear and tear. In April and May they begin to worry if their children are going to "make it," too, and no matter where they see you, they will ask, "What can we do? Its that youngster of mine going to make it?" "Making it" means going from one room to another. If they would only be concerned with "how well is he learning?" But we are tied down to this type of cultural expectation regarding promotion.

An ungraded primary is a skill-orientated school with skill-conscious teachers. Teachers far too often become very general in their teaching. When you write up a lesson plan, your aim, your goal must be to do something, something you can see happening in the children. Very often our goals are so general that we have no idea whether we have accomplished them or not. Perhaps we feel more secure that way.

Remember a level is a group of sequential skills or concepts to be achieved or mastered by the child with no reference to time. Now, in order to have something tangible to talk about, let us talk about reading. What is more important in the primary school than reading? Level A is concerned with skills taught at the readiness level. We have pulled out of the readiness program the definite skills we feel that the children have to know before they go into the next stage. We just don't "cover" this book and then go on. We give an achievement test at the end of each level. Now it will be up to you to decide whether the achievement test which accompanies your series is efficient and is a comprehensive enough test. If it is not, then you supply the items that you want, and each child takes this test at the end of the level. He must show some actual achievement. So we have determined for every test what is called a critical score. A critical score is not a mere passing score. It will range anywhere from 85 to 90 to indicate that this child has a good grasp of this material before we go on.

After you teach all of the skills of level A and you give a test and a child comes up with a score of 55 or 60, he is not eligible to go on to the next level of skills because he couldn't possibly cope with it since he hasn't mastered this lower level of skills. I would say that if you have a child who scores as low as 65-70, it is the

teacher's fault because the teacher was not alert enough to adjust that child to another group where he could be learning more slowly and achieving more adequately.

How do you start an ungraded reading program? Let me start with children coming into first year primary. We use the Metropolitan Readiness Test. We have found it to be a good prognostic tool. And on the basis of that test score, we divide the children into instructional groups. We are a large school system. We have 250 schools with several thousands of children; so we went into nongrading one year at a time. We gave the Metropolitan Readiness Test, and on the basis of that test we grouped the children. Now in a nongraded school you can have homerooms or classrooms of heterogeneous or homogeneous students. We choose to start with homogeneous classrooms. On the basis of the Metropolitan scores, you can arbitrarily group this way. The first group ranges from the 73rd to the 100% ile, the second group from the 37 to 73% ile, and the third group from 37 to 1% ile. This is admittedly still a wide range. If you have two rooms of first year students coming in, you can refine this. If you have three rooms you, can refine it still more.

If you plan to adopt a nongraded primary, I would hope that you plan on having a very good orientation program with parents who understand what you are doing in your school. They have a right to know. They are going to find out; so you might as well tell them if you want their cooperation. I think that parents need a terrific amount of education, just as we teachers do. We are all caught in this grade bind, and we all have to break out of it and become more interested in individual children and what they can do. Sometime you think you have parents convinced that they should accept their children where they are, that they are doing well. Then they come for teacher-parent conference where they find the teacher is very happy because their child is on level "D" and doing a real fine job. On the way home they meet Mr. Smith and his boy, Bill, is on level "E". How come that he is on level "E" and your boy is only on "D". Everything is destroyed! Once parents begin to compare one child with another, you can see what will happen to the children. If a child is doing as well as he can, he can't do any better. We all do the best we can with what we have. And parents surely can't plan this either. This is just the way things happen. You can't order blue eyes and curly hair while the baby is on the way. Neither can you order a 135 IQ. At least up until now you can't. Goodness knows what you are going to be able to do in 15-20 years from now, but as

things are, now we can't pre-ordain what a child will be equipped with when he comes. How totally unfair it is for any child to have to suffer for whatever potential he has. He can't help it. I think we really do children a terrific injustice when we expect this much from this child because some other child can do it. This child is not the other child. This sounds very simple, but it is very profound. Each child is unique. And each one has his own intellectual equipment that he brings to school.

When you ungrade your school, take grade labels off the doors and just label all the doors "Primary," Miss Smith, Miss Adams, or whomever it might be. But then the biggest job is to get the mental labels out of your thinking. You are no longer a first grade teacher, or a second grade teacher, or a third grade teacher, or a fourth grade teacher, or a fifth grade teacher. Whatever classroom you are in, you are simply a teacher--a teacher, an educator, who is interested in reaching the child who happens to be in his classroom; reaching that child with instructional material at his level of understanding. You can divide your classes homogeneously, as we have already discussed, or you can decide to have a heterogeneous classroom and group the children homogeneously for instructional purposes. In this latter instance some of these children will be leaving their classrooms to go to some other classrooms for instructional purposes. I have seen this work in a primary; and it works very well. The teachers were very happy with it. We think that little children have to be with the same person the whole day; they don't. I have visited schools where primary children will meet three different teachers during the day and somehow or other they sort of gravitate toward one of these three teachers, and that teacher becomes their mother-figure in school. It may or may not be the woman whose homeroom they are in.

If you decide to have a heterogeneous set-up,then I would suggest that you have a language arts block of time in the morning. The children will come to their heterogeneous classrooms first to get the announcements for the day and get their little books. Then they go out to another classroom that morning for a language arts block of time. It's inconceivable to teach any of the language arts students other than at the level at which they are in reading.

Now in a graded school, when a child goes from first grade to second grade, he is automatically exposed to a set curriculum in reading, spelling, and English because that is what the second grade teacher teaches. She has a supply of second grade books in her

room, and everybody gets the same school books. But, as we well know, everybody isn't ready! In an ungraded primary those children who aren't ready to begin a certain level do not begin it, nor do they begin other subjects, such as spelling, before they are ready for it.

In referring to the Metropolitan test scores as a possible means of initiating grouping, it is well to remember that while the teachers should use these test scores, they also should use their own good judgment as time goes on to make adjustments in groups. A teacher's judgment is a mighty important thing. In a nongraded situation a teacher becomes much, much more important. She has always been important, but she has rather been somewhat subservient to textbooks, to grade barriers, to the superintendents office, and so on and so forth. The teacher becomes the prime factor in a nongraded program because it is on her judgments that so many decisions are based, and so she becomes of utmost importance in this system.

In a heterogeneous set-up (to which reference has been made) where the children go out for their language arts block period, you might want to have your Phys. Ed. and your music period on alternating days during the block of time. This is fine to schedule Phys. Ed. and Music as a change of pace. In the afternoon after lunch the children come together again in their heterogeneous homeroom and then go out again for a math and science block of time. Math is another skill area. You may or may not choose to combine science with math. You might prefer having science with the heterogeneous group. Now, the children who were grouped one way in reading need not be in the same group for math.

Now to get to a tangible thing here; let me describe to you you at level "A" the readiness level, the kinds of skills that you would set up. I just want to review them briefly for you so that you will understand what I mean when I say that we did get very specific about this and then tested the youngsters. Children, when they have completed level "A", have to have auditory discrimination in a variety of elements. If they don't, they don't move on. In other words, if youngsters cannot tell you that boy and dog do not rhyme, they are never going to be able to tell you that boy and dog do not begin alike. It is this gross discrimination that you work on first; then you get down to the finer elements. They have to be able to tell rhyming words apart. You might ask them, "Does man and coat rhyme?" and they'll say, "Oh, yes". That is your signal to just keep

working with rhyming elements. Until they get rhyming sounds, they need a great deal of auditory training. Our youngsters hear very much. They are exposed to very many sounds, but they do not discriminate what they are hearing, and so it is our job to do a lot of training in listening.

After they have mastered auditory discrimination of rhyming elements, then we are concerned with auditory discrimination of word beginnings and word endings. You see the hierarchy of skills. You don't go to one until the previous one has been mastered.

There is also visual discrimination of word forms. They have to be able to see some difference in the words or sameness in words. We develop visual memory. We are concerned with alphabetic sequence. Three years ago I was on the plane with a Doctor from California. He wanted to know where I was going and what I did. When I told him I was a teacher, he said "What's going on?" Right away you feel the burden of all of the ills in the educational field. He did the physical examination of the young men aspiring to get a job in certain industries out there, and he was telling me about this young man—a tremendous physical specimen. He said, "Then I checked his eyes, and although his vision was good, he couldn't read one letter of the alphabet. He simply couldn't tell one letter from the other." The doctor wondered how a young man like this could get through school. How could he? Do you think maybe some youngsters have gotten through school not knowing the letters of the alphabet? Don't be too sure they haven't because we take things for granted. Anyway, the doctor told me he couldn't recommend that young man for a job because if he couldn't read TNT, he wasn't going to put my John Henry on any form because he was going to work for a chemical factory.

These are basic skills that youngsters have gotten through school without knowing, because somehow no one really checked, really made sure they knew them! These sound like simple skills, but you have to test each child; each one has to be accountable so that you are sure that he knows it, and not only in group work. Group answers should never be sought nor accepted. Each child has to be accountable for everything that you teach.

By the way, when you start to teach level "A" at the readiness period, within a week or two you should have your group set. After you've had experience with a class of children for a few days, you get to know that you will spend less than a day with this group for

a lesson, two or three days with that group and almost a lesson a week with another. Now I would like to tell you that this level "A", this readiness period, may take until Christmas. You are not accustomed to taking that long. You have been accustomed to getting it covered in six weeks, eight weeks, possibly ten weeks at the very most because you've got so much else to "cover" that you can't spend any additional time here. But you see, my point is you gain time by spending time at each level. The more cemented a child becomes in what you are teaching at each level, the stronger the foundation you can build for each succeeding level. Some groups of children get no further than level A or B in one year.

Level "B" is the level concerned with the skills that are usually taught in the three pre-primers, but again we have isolated these skills. Each teacher has a line-up, along with suggestions on how to test each skill. And so we have some youngsters who do not complete any more than level "A" and level "B" in one year, but they know each and every skill. They achieve well. As an example of this, in a large school where we had three rooms of youngsters coming into this school, and the top raw score on the Level A test was 64—the highest raw score you could achieve on this particular achievement test. The top group of fast learners finished this in October. Their scores ranged from 64 to 60 for this group of rapid learners. The very, very slowest group didn't finish this until after Christmas, and when they took this same test their range of raw scores was 63 to 59. Now as this pattern emerged, I cannot tell you how thrilled all of us became about this because it proved conclusively that all of these children could learn, could achieve if we gave them enough time in which to do it. In fact, they could achieve as well as the more rapid learners with one big difference—the element of TIME. And so all along the line the scores were comparable, until the rapid learning group finished level "H" in February of their third year in school. They came up with a range of scores 100 to 90. This very slow group did not finish it until the following December; their range of score was 99 to 88. This chart showing the learning curve of a rapid learning group and a slow learning group illustrates how steadily both groups of learners grew in reading achievement throughout the entire primary period. It is evident that while both types of learners grew steadily, they reached their respective levels at very different times. But, the most important thing was that they did reach the goal—mastery of skills taught at each level, with successful achievement!

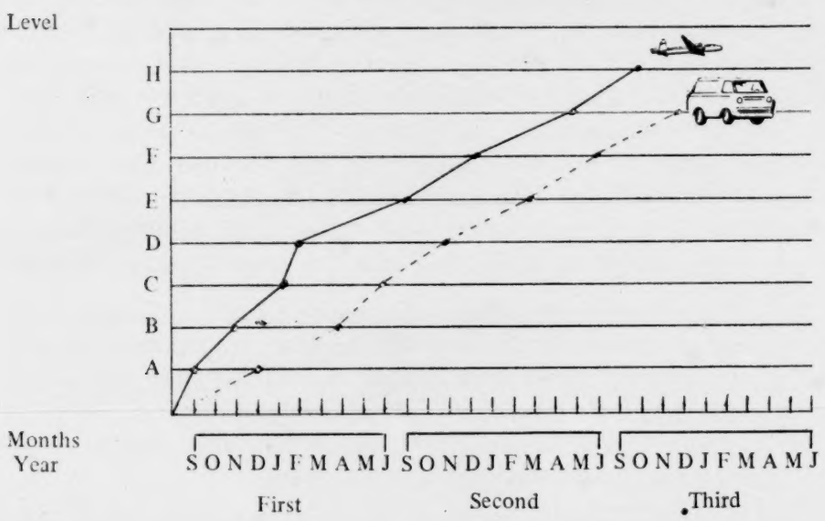
Those of you who visit any classrooms at all in the capacity of supervisor or principal usually can tell when you go into a slow learning room. There is a kind of a dull look about the youngsters. Rather—blah! Do you know why? Because the children do not know what's going on. If you went into a nongraded school, you would not note this same flat, dull and colorless atmosphere. As long as slower learning youngsters are kept working at the level where they can achieve success, you have something going, but once you get beyond their instructional level and get to a frustrational level where they don't know what is going on any more, this is when they grow frustrated and lose enthusiasm. It becomes difficult to pick out slow learning classrooms in an ungraded sitution because the youngsters are bright-eyed, because they have the enthusiasm. They have the same zip at work as brighter and more rapid learners because they are being taught at their level and are experiencing success.

It makes a tremendous difference when a child is taught at his instructional level or frustational level. As teachers we must become aware of the signs of frustration in children. These youngsters have ever so many ways of telling us of their frustrations, of their inability to cope with a situation, but if we are not alert enough to see them, we don't make the necessary adjustments.

Within the ungraded situation there is a provision that slow learners can take four years to do the work ordinarily accomplished in three years in a graded school. This is not an adjustment that takes place at the end of the three years when the child is kept back. No, this adjustment is made long before that. He does not have the frustration of being retarded; he is just adjusted to another group where he can work well. This adjustment is made at any time during the year. There are so many instances and so many ways in which you can help a child to be open to the adjustment. Children want to feel success! Children will cooperate beautifully with you. A child is happy when he can achieve. This is what he is in school for. And we have to remember that we are in school for that child. Administration must serve the child, and not the child serve the administration, which is what we have been doing far too often.

Rapid learners, on the other hand, can take from 2 years to 2½ years to complete the traditional primary curriculum. Now what do we do with a youngster who finished the primary in 2½ years? Well, this is what we do. We bring in fourth grade material to that group and teach it to them. At the end of three years in primary, these children go into the fifth grade without having "skipped" anything

because they have been taught 4th grade material. Out of a group of 120, about 10% of the youngsters might be in this rapid learning group who will go into the fifth grade after primary. Studies show these youngsters do well not only in the elementary grades but also in the secondary school. They maintain high achievement.



The time required for the slower-learning group to complete Level A points up the need to provide opportunity to bring slow learners steadily forward at their rate, particularly at the early foundation stage and thence at each successive point in the scale of reading growth. Failure to provide such an opportunity is failure to build up cumulatively and sequentially the necessary knowledge and power to attack more difficult levels.

Attention is called to the significant fact that slower learners "catch fire" and pick up momentum as they go along. Just compare the time element between the various levels for each respective group. Although you see a difference of three months in the time needed for the slow learners to complete Level A, it is the only level at which such a big difference in time is to be noted. On each succeeding level, the slower group either needed one to **one-and-a-half** month's additional time, or completed the level practically within the same amount of time as the faster group.

The teaching of a class of slow learners is a difficult task—one that challenges the ingenuity and patience of a teacher, but one that can be extremely rewarding for the teacher who has a loving understanding of the many problems confronting the slow learners. These teachers bring a new sparkle into the lives of these less gifted children who have to plod along at a slow rate, but who can and DO experience success under proper teacher-guidance. These teachers do yeoman service to our children who have been less endowed. It must be recognized that whatever intellectual gifts children possess, be they great or small, are God-given; all the child can do, all the teacher can do is to work with what these God-given gifts.

6 The Curriculum of the Nongraded School

DR. ROBERT ANDERSON

I would like to share with you some of my thoughts about the curriculum of the nongraded school. My hope is that I can say what needs to be said in less time than is available, and then we might have some questions in order that the situation might be more directly suited to your immediate needs and interest. I have already heard and seen a lot here at Antigonish that has inspired me to believe that this important cause of nongrading is indeed off to a good beginning in your province and in North America generally. Although, for the most part, my general attitude is one of lamentation concerning the very slow development of this beautiful idea throughout the world generally. I think it is totally consistant with our most precious beliefs and, in fact, our most earnest intentions, since for many decades educators have been talking about truly meeting the needs of unique individuals through more appropriate organization. But the gap between our talking and our doing has remained pretty great, and the fact we are as yet unable to point to a great many splendid examples of nongradedness in the U. S. and elsewhere is in a very large measure a reflection of the disappointment that I feel. However, your attitudes, the enthusiasm that you brought, your very numbers in this conference have certainly inspired me to believe that we are now on the way, and the numbers of people that have been concerned with having meetings of this sort seems to be multipling geometrically. I know that in my own life the opportunities for participating in conferences like this are just overwhelming, and I'm finding it necessary to say, "I'm sorry I'm already busy that day," about seven times for every time that I'm able to come along. Therefore one of the things that we really must do is to increase the number of people whose knowledge and whose committment in this area is sufficiently great so that they can begin to fill the great need there is for advice and counsel. And to jump to one of the most important conclusions of my own thinking in this respect—it is that there is a particular burden on the principals in our schools, those men and women who serve in the front lines of education and who are close to children and their parents. These are the people who, above all others, are going to have to acquire the knowledge and the expertise in making nongradedness happen, thereby making it possible for teachers to have the counsel and inspiration and the specific advice that they need. So I'm es-

pecially pleased that so many school heads are here, and of course, pleased that so many people that are associated with colleges which will be working with principals in the schools have also elected to join us in this session.

I just completed a world trip this summer, during which I had a most interesting week in Adelaide, South Australia. I attended a meeting of the Australian-New Zealand Association for the Advancement of Science in which this topic was a prominent one, and during which I heard a number of Anzac speakers talking to essentially the same questions. I was impressed for example by the remarks by Philip Hughes who is the Director General of the Tasmanian School System. He pointed out that there is a tremendous opportunity for us in education to take advantage of the great new knowledge that has become available about children and how they learn, and he said, in sympathy with the arguments of John Gardiner, that many of our school practices have the tendency of diminishing individuals while the others have the capacity to strengthen individuals. I think I was impressed by that comment because it seems to me that it summarizes very well what is wrong with the graded school. The graded school diminishes almost everybody who is associated with it. The use of competitive, comparative reporting practices, the unitive reward system, the punitive system with which indaquate performance is met—all of these things tend, in fact, to make people less than human and even the bright children, the ones who get the A's, are diminished by the system in as much as ordinarily, there is so much redundancy in the grades that they get and there is such a relative advantage for them in the system which is geared to the average, that many a bright child just coasts along. And, of course, youngsters below the middle in the span of I. Q. or talent are constantly frustrated and discouraged by the system because no matter how hard they try, no matter how well they do, this system tends continually to say to them that they are less than worthy people. So when Hughes made this remark, I was very much tuned in.

Professor L. F. Neil from the University of Adelaide gave one of the best talks of this convention, and his essential argument had to do with making the schools more suitably adult institutions for the young people who inhabit them. I think he was talking particularly to the secondary school people, but I think that what he had to say is basically pertinent to schools at all levels. We have tended as educators to preserve our power by maintaining the schools as relatively childish, juvenile, social communities within which the child-

ren had very little control over their own affairs, over their own destinies, and very little if any opportunity to help make the decisions concerning what they should be taught, how they should be grouped, and how in fact their school experience should proceed generally. Neil went on to say that not only do we apparently have this kind of objective, but also the way we go about achieving it, is medieval. It is pre-Gutenburg, actually. Our ways of teaching still seem to assume that things are not available in print and that therefore we must pass along all our hot dope and information by word of mouth, much as did our ancestors in tribal communities where there were no written documents and where the history of the tribe was passed along from one generation to another, through the elders, through the medicine men, and others who made a particular point of remembering and of passing it along. It's time then, said Neil, for us to make profound changes in our technology and to make use of the dazzling knowledge that we have today. A reference was made to this yesterday by Frank Brown. He had a slide in which it was shown that the amount of knowledge in the world has approximately doubled between 1950-60, and, of course, the slide is out of date because it has doubled since then. He failed to mention it, but I presume it was obvious because of the flood of new information that is constantly being produced. That being the case, it seems to me that, first of all, anybody who dares to talk about curriculum is presumptuous indeed, since, in a matter of seven or eight years, the whole game changes, and we are forced to defend the continued inclusion of almost anything in the curriculum. The sum total of our substantive goals in history, the social studies generally, in literature, in the sciences, and certainly in the creative and expressive arts—all of these things have to be constantly reconsidered in the light of what is new, and in many other ways as superior options become available. Even more than that, we as educators must take into account those parts of the new knowledge that have to do with our own work. Most, I suppose of what has been learned in the last decade because of our inquiries relative to the space program, just to take one example, has some ultimate relevance to us in providing us either with a better understanding of how the human body is put together with how the human personality tends to emerge and develop, and also how we may, in fact, be able to study the human body further. Consider, for example, the technology they have in Houston whereby they are able to keep records of the pulse rate and the digestive processes and all kinds of intimate and interesting information about the astronauts when they were walking on the

moon or flying in space. This is because they have developed instruments that can be attached to the body or which will pick up signals from the body through very sensitive microphones and that can be then relayed several hundred thousand miles to a place where computors help to keep a record. If one of the astronauts is suddenly frightened by something and his pulse rate goes up twenty or thirty beats, technicians sit up straight in their chairs and they know something is wrong. We all know that this kind of technology which is being used for very specific purposes at the moment ultimately may be used for more general purposes by us. Wouldn't it be interesting, for example, if a speaker could have a little dial on the rostrum which helps him to know every time he says something that startles a fraction of his audience and causes their pulse rate to increase momentarily, and wouldn't it be more interesting to us as teachers, if when you are giving a test to a bunch of kids, for example, you would know what's happening to Jimmie Murphy's stomach when you ask him this kind of question. Now that sounds sort of improbable, I suppose, that we should ever get that fancy about it, but in all probability such technology will in fact be used in the future and we will be far better able to gauge the true reactions of children to the various situations which we create for them in the schools than has been possible for us in the past. Out of these and other studies of what makes children tick and keep ticking and stop ticking will come increased insight into how they actually learn, and if anything can be said of our scholarship in the last 30 or 40 years, it would be that it has intensified our realization that kids are different from each other, radically different from each other—different in more ways than we ever imagined might be possible. Now, of course, they're also very similar to each other. There's a great deal of comality in human kind, and one thrust of recent research and investigation is that we have perhaps overstressed the differences in I. Q. that there may be between different kinds of children, between different racial and ethnic groups, etc. In fact, there was an article in the New York Times sometime within the last year about this very thing. It made the general point that every creature born on this earth has a tremendous potential for ultimate intellectual and other development, but environmental influences have a tremendous role to play in determining the extent to which he will realize this potential. As we get to know more and more about how these environmental factors do influence the capability of children, we are much likelier to understand and accept them with sympathy and the appropriate compassion that has been absent in most of our history of

dealing with certain ethnic groups, and then make more possible the full development of these various kinds of children. But they're there and they are different from each other, and we are beginning now to appreciate how much of what we do is unfairly geared to the vision oriented children—those children who have a certain kind of intelligence, a certain cognitive style that we associate with memory and whose intellectual talents help them to survive the peculiar kinds of educational rat-races that we run them through. I would be willing to bet, for example, that almost everyone in this room is a vision oriented, good memory, conventional I. Q. kind of person because almost everyone in this room is a teacher—one of the survivors, one of the successful survivors of a poor educational system, and one in fact who feels sufficiently kindly toward that system to want to spend his life in it. For instance, my guess is that most of you are reasonably good spellers, better spellers than the average person that you know, and this is not because you are brighter, although you may be, but because you have a kind of perceptive vision system that allows you to remember the orthographic structure of things that you see. I, for instance, find it far easier to remember people's names, and I'll bet you do too, when you see them on name tags such as we are wearing this week. The medicine men used to run the tribes because they were able to listen and remember for generations really, the things about that tribe that were important. Well then, we change the name of the game and another kind of intelligence came to be valued more greatly, and our schools have tended to be oriented to the more modern kind of intelligence, the vision intelligence that I have just mentioned. Frank Brown mentioned yesterday that there are kids who see, and there are kids who have to see and hear and touch, etc. Well the latter kind of child has been left pretty much out of it, especially in our high schools. Nursery schools, kindergarten classes and primary classes tend, on the whole, to appreciate and recognize the validity of learning by doing, by handling things, etc. But it is only in the labs and a few classes like arts and crafts at the high school level where the youngsters are in fact permitted to continue living and thinking in that way. I suspect that this as much as anything explains why for the physically oriented youngsters school has so little to say that they generally drop out and then almost invariably go into some kind of physical work, some kind of work where they can in fact tune in to the work that is otherwise rather foreign to them. Well there is much more that needs to be said about that, and I hope that you can fill in the rest of the data to your own satisfaction. All I am trying to point out is that we have every reason now to believe

that practices in our schools must change very radically in order to include and take account of the various kinds of learning styles, learning techniques, and learning methods that are natural to human beings, and this predisposition that we have for seated indoor, verbal learning activities, I think you will all agree, simply has to change. We need to see schools as more variegated environments within which a variety of things can and will happen. We are then, in short, very fortunate as teachers because for the first time in history, I think, educators have available to them an essentially authentic and comprehensive view of the human creature that schools attempt to serve. That's a very important sentence, because the fact is that no teachers in history have ever had as much good advice available to them from the scientific research enterprise as has become available to us. That we don't use it, or we haven't been using it as much as we should is a problem to overcome, but the fact that it is there to help us, it seems to me, is kind of wonderful news and we need not only to rejoice in that news but to make use of it. In 1967, the Association for Supervision and Curriculum Development of the National Education Association produced a yearbook which I think is a land mark in our literature. Its title was **Evaluation as Feedback and Guide.** It was edited by Fred Wilhelms who is now the Executive Secretary of A. S. C. D. It's a powerful statement to us and the public we serve to the effect that the conventional competative, comparative report card is an evil thing and that we need to take a new approach toward evaluation and all the processes of reporting, record keeping, etc. that go with it. Evaluation is a more important part of our professional weaponry than we have realized, and we should be using primarily as a basis for our curriculum decisions rather than as a kind of judgment-making device whereby we control the fates of children. In that yearbook there is a chapter on "Learning and Evaluation" by Rodney Clark and Walcott Beatty that I would recommend as compulsory reading for every teacher in service. In it there are a couple of quotes that I would like to share with you, one on page 49 and one on page 65. These summarize very nicely the basic position from which my own remarks tend to spring. Most teachers now know that older notions of training the mind, mental discipline and transfer of training were the basis of a kind of methodology. While these ideas were in command, they generated methods of teaching and ideas about school organization which have been in practice so long that they now seem natural and sensible. Thus these procedures linger on long after their rationale has faded. Besides, many teachers have come to feel that it is not their province to try to understand learning, but whatever the mystery of

the process, the teacher's job is to teach and the student's job is to learn. The other quote says pretty much the same thing, and argues that much of what we do as teachers must be re-examined. It seems obvious that our traditional curriculum, our time-honored notions about the structure and sequence of content, our preference for seated, indoor, verbal learning activities, our defensive notions about control, our limited respect for human potential, our undemocratic manipulation of other peoples choices, our procedures for being helpful, our concept of the teacher's role—these deeply entrenched aspects of teaching grow out of archaic notions of human behaviour and human learning that are no longer acceptable. Now I would like, if I had the time, to toy with each of the phrases in there, to flush it out for you, and to help you appreciate its essential validity. Notice several references to words like methodology, archaic notions, etc. One of the interesting things that I have discovered in examining the history of the graded school, which is the important history for us to understand as we seek to develop an alternative, is that most of the practices, most of the attitudes of mind on the part of the teacher, and most of the practices that teachers developed as a result of having those attitudes were based on what we would now tend to repudiate, evangelical conceptions of the sinfulness of man related to pedogogy. Taking in effect the notion of the Garden of Eden, and moving it into the classroom, we have made certain basic assumptions about the essential unworthiness of the human child which makes the assumption that some kind of devil is likely to operate within that child unless we can exorcise it in some way through threats and reprisals ,and what not. The book "The Graded School" by a Mr. Wells who was the Superintendent of Schools in Chicago in the 1860's, as far as I can tell, was about the most influential book in creating the graded schools across the U. S. It is pointed out, and he actually used words like this, that the precocious child has a kind of devil operating inside of him and what we have to do is to squash him down, and prevent him from getting ahead of himself in one dimension or another, lest we have some sort of difficulty in maintaining the orderliness and the pace of the lesson for all children. And, of course, the child who is behind has another kind of serpent that has bit him and his problem is that he is sort of a degenerate shirker, because if only he would apply himself with the diligence and effort that we know to be possible, he would in fact maintain the same pace as the rest of the kids and succeed. Now you may think that I am hamming it up a bit, or putting a kind of peculiar twist on history, but believe me, these are the words that have been used in the literature of the

graded school, and this is the naive and essentially unacceptable perception of human children on which many of the practices of the graded schools were in fact based. I agree that the graded school is totally unacceptable, but I would point out that in history, graded schools did in fact make a contribution. I have a suspicion, in fact, that the United States of America, which was the first major nation in the world to adopt not only graded schools but also the notion of mass tax supported education for all children of all the people, wouldn't have become the nation that it did become had it not been for the graded structure that made mass education possible in the time of relatively little knowledge. When we had relatively poor teacher training institutions and all the rest of it, gradedness sort of made it happen, made it hang together, gave us a set of curricula, first grade curriculum, second grade curriculum, etc., each of which could be managed by a poorly educated human being, who was then the teacher, and each of which then became a kind of special field of knowledge for that teacher, and also helped us to accumulate over time a certain amount of insight and understanding into what six years olds are able to do, and seven year olds, and eight, etc. through the cycle. So let it not be said that the graded school has always been evil. Let it merely be pointed out that it has served its purpose, and the time has arrived, in fact the time arrived 80 years ago, for it to be modified in a substantial way. This I think is a more useful way of describing what the problem is than simply to imply that it has always been bad. However, it has done a number of things to us. We have perpetuated this system, for example, of seeing just one section of the total curriculum as the intellectual arena in which teacher A will function, or Teacher B, or Teacher C, and teachers have themselves tended over a period of time to lock themselves into one of those cycles and to say, "Well, I have always taught second grade; you see, that's the area I understand. I know the teachers manuals; I know children of that age very well; I've given tests to these kids for many years, etc.; so please let me keep teaching second grade.

An interesting article appeared in the **Elementary School Journal** this last year which has had a tremendously beneficial effect on my own thinking. A man named Gorman has pointed out that one reason why the non-graded school has developed so slowly is that the teachers are in fact voluntarily prisoners. They have this tendency to continue thinking about seven year olds, and the two-one and the two-two book is sort of being appropriately fitted together and therefore, even when you get rid of the labels, etc.,

teachers continue to roam within that relatively limited spectrum. His suggestion, which I enthusiastically endorse, although with some modification, is that there should be annual reassignment of every teacher in order that she will necessarily have to move into a new intellectual realm, necessarily have to deal with an older child and thus face the consequences of what she has been doing in the past, or else a younger child and begin better to understand some of the problems that she had when she was dealing with them later. You see the point? I think it is a beautiful argument, although annual reassignment may be a little bit too tough because most teachers aren't emotionally and intellectually able to make all of the adjustment that there are involved in going up and down the spectrum of the curriculum every year. But certainly, within a career lifetime, which for some teachers goes more than forty years, and for the average teacher apparently goes somewhere around 6 to 7, it would seem appropriate that the experience that the teacher has in successive years ought to change radically enough so that he will gradually develop a command of a larger, broader spectrum of arithmetic, math, science and all the rest of it, but, much more importantly, he will gradually develop a much broader repertoire of child understanding, and a much more longitudinal perspective on the way the human creature grows through the various stages of his life. Now another point that is made by Clark and Beatty, in addition to this sort of locking in that we do, has to do with our defensive notions about control, and our undemocratic manipulation of other peoples choices. Here I think is where a lot needs to be said. I'm not the right one to say it, but I would certainly like to second the remarks of others who are pointing out to us, like George Leonard in his book, **Education and Ecstasy** that learning is basically a pleasureable experience, especially if it follows our own interests, especially if it is something that we want to learn, and therefore it makes much more sense to give the children opportunities for deciding what they are going to learn and for having something to say really about the kind of school experience that they are going to have than this usual game that we play with them in which we sort of tease them to a point of agreeing that the postman would indeed be kind of fun to study next. There isn't a child in North America above the age of four, in my opinion, who wants to know one thing more about any of these community helpers, like the postman, or the fireman, or the policeman—policeman—you know the fellows who control traffic in Chicago during conventions and these other nice guys that make our life so rich and wonderful.

Charlotte Huckner did a study about 15 years ago in which she looked at the second grade curriculum in Social Studies and gave kids in September a test on all the content of that program. She found that they knew 79.6% of all the stuff that they were going to learn in the second grade before second grade started. You know, I told that to my students when I was running the teacher training program, and they laughed it off. The kids may know of these things, but we are going to study it in depth. What they really meant was "Don't throw us out of gear, boys; that's the postman. I know the postman, and so I am going to teach the postman, come hell or high water." And as for the kids, like the teacher, they have been watching the latest news reels from Viet Nam or Biafra or something like that or they have been talking among each other about the Kennedy business. Even though they are seven years old, you may be sure they know what's going on. But next morning the teacher stands in front of them with a straight face and says, "Well now, we are going to study the postman" or she may even put it as a question. She has got pictures of postman mounted all over the room that weren't there yesterday, and she says, "Which community helper would you like to study next, boys and girls?" And, of course, the kids look around, and then they look at her and they remember what their brothers and sisters told them about the way 2nd grade is, and so one fink in the class says, "Postman". And the teacher says, "Well, that's a good suggestion. How many of you would like to study the postman?" The kids are in a real dilemma at this point because I have already pointed out to you there is no excitement for them in this whatever. However, they have noticed several things: number one, she likes the postman; number two, she is ready to teach the postman; and number three, how can I lose, I know all about it already, so I'll pass the test, and so enough hands go up and the teacher goes home and she says, "the kids really love this community helpers stuff." How many times do we fool ourselves into believing that this is the case. How many times do we play postman in all of the other contents as well. I suppose the second grade teachers are the ones that are squirming, but believe you me, I am talking to everyone of you. There are postmen units in every course of study in the book including probably stuff that has been taught in this university as well, and it is about time that we start to think honestly about real choice and not the manipulated choice that has been indicated here. In fact there is a film, prepared by John Goodlad and his colleagues at U. C. L. A. a few sum-

mers back called "The Summer Children" in which they report the experiences of working with some black children from Watts, who were brought to U. C. L. A. lab school for an enrichment program one summer, and it is really good. These kids came never seeing a school like this with animals around and what not, and for the first few days they are given a chance just to explore and to get used to the environment and to believe that the teachers can in fact be friendly and, you know, other discoveries that are important for children to make. And then, at a point when they have explored some of the possibilities, the teacher brings this group together and they have to make a choice now as to which of the possibilities they want to study in depth, and so she says to the children "we have to make a choice", and right on the film this comes through. I'm not quoting this exactly because it is several years since I saw it, but I'll never forget, this one little kid to whom she said, "Do you know what it means to make a choice?" and this one little kid said, "That's when you agree to do what the teacher wants". Isn't that awful? So there we are—this kind of emphasis it seems to me deserves more of our enthusiastic support than it has been getting, and within the whole frame of reference of our curriculum, it seems to me, we have to loosen up, for one thing, if knowledge is doubling every ten years or so, then it seems to follow that it is becoming even more impossible than it was when I was a kid for the teacher to try to teach everything. You just can't. You can't teach all the geography. Bruner has even made the audacious suggestion in his most recent book, that perhaps we have to quit teaching history because it's being made more rapidly than we can digest it. You know, just the history of the last 12 months would be enough to keep every student in the world productively occupied. Similarily, in science, just imagine how difficult it is for the science teachers to stay on top of their own scholarship, not to mention keeping the curriculum sufficiently up-dated so they aren't just teaching a whole bunch of wrong things.

The most obvious difficulties, I suspect, are in those areas of knowledge that are being pursued most diligently by the society, namely, science and mathematics. But certainly, across the board, all of these things are true, so I would therefore urge upon you a much more relaxed attitude about covering anything. I think it is no longer important really for us to look at what we're doing as dispensing information. The infinite supply of information is out-distancing us. What becomes more and more important is how to look at anything within the curriculum. Any essentially expendible ma-

terial which happens to be conveniently at hand and through the study of which we may bring children to certain conceptual understandings and to learn how to study, to learn how to learn, in fact, may be the really only important object of the elementary school. Learning how to pursue or gather data, for example, about any given problem, how to make hypothesis about what that data imply, to test the hypothesis with explorations and theories and then with more data gathering—these are the intellectual processes that will be enduring, that will still be used by scholars ten thousand years from now, and that children are going to have to master before they can become thinking and effective adults. So concepts then would be more important than specific facts, and those process goals that we identify with learning how to learn become far more important than the product talents that we have so valued in the past. Now obviously this means that our testing enterprise is going to have to be radically revised. It will no longer be acceptable for the test makers to come up with tests which require the kid to remember what year Balboa was born or, you know, all kinds of trivial data of that sort. It will become more and more important for the test makers to devise a thought inducing situation, to give the children raw material from which they can begin to generate concepts. That sort of testing is, in fact, beginning to be an important part even of the College Boards. We may hope that it will be greatly stimulated by the U. S. A. efforts toward national assesment, and by the generally competitive posture of the several test producing companies that are presently coming to appreciate what I've just said. They are looking for better answers than the answers that they have had.

Well, I could play with that one all day, and I'm sure you would be interested in it, but I must move on to a few basic ideas that seem to me to be important as we try to round out our general understanding of what the nongraded school is and what the curriculum within the nongraded school should be. Yesterday Frank Brown mentioned or had a picture of sacred cows, and these have been faithfully reported in the newspapers. You will surely remember that one of the sacred cows to which they unaccountably made no further reference was the self-contained classroom. My observation would be that of all the organizational arrangements that we have available to us at the present time, both vertically and horizontally, the most useless and anachronistic and even dangerous is the notion of teacher autonomy which is built into the self-contained classroom. No idea deserves to be scrapped more quickly than the notion the teacher should work permanently through the year

with one group, or succession of groups as a self-contained teacher. This idea, in fact, seems to me a more dangerous one at the moment than does the idea of gradedness.

The tradition of self-containment to which we are so loyal, it seems to me, is getting in the way of the nongraded movement, and, in fact, making it less possible for teachers to grow in-service than must be the case, if we are not to continue being the victim of obsolescence. Now I put that in rather high blown phraseology, but what I'm trying to say is that unless and until teachers begin to work cooperatively, and unless and until we begin to enjoy the flexibility, the freedom of movement, and the freedom to specialize that is associated with the concept of team teaching, it"s going to be much more difficult for us to make happen what you in conference have come to hear about and think about.

I'm a native of Milwaukee, Wisconsin, which, in part, explains why I'm interested in nongrading, since that was the first major American city to become committed to the concept of continuous progress at the primary level. In the original edition of the **Nongraded Elementary School** we said, the movement really had Milwaukee as its capital city. They have continued until quite recently to have self-contained classrooms within their nongraded primary, and as a result, even though Milwaukee has tried to make nongradedness happen since 1942 and that's a long time ago, and some of you young people who are now in careers as young teachers weren't even born then, in all that time, Milwaukee has gone only a small distance towards the possibilities of nongradedness, I think, largely because they have been crippled by the self-contained classroom pattern. By contrast I can name several hundred communities that have gone into team teaching as an enterprise sometimes perhaps most of the time, with very little thought initially about becoming nongraded, but because of the freedom and the flexibility that the teaming gave them, those schools were at least as far as Milwaukee within just a matter of weeks, and got a lot further than Milwaukee in a matter of months because of the positive results produced by cooperation.

I have one slide and in this slide I show at the bottom, graded self-containment, and at the top over here, nongraded team organized classes, and then there are two ways of going—one is by going first into non-grading, and then adding team teaching later, a second way is to go first into team teaching, and then adding nongradedness later, and if you got this picture in your minds, the general

idea is Lochlomond. If you take the high road, I will take the low road, and I'll get to Scotland before ye. This is the right place to mention something like that, although I probably misquoted it. At any rate, the general idea is that when you move first into the more flexible arrangement, that allows you to group kids almost any way that you want, to have varying size groups, large groups, small groups, mixtures of large and small, etc., and to have a variety of teachers available, one of whom may be better for Jimmie Murphy than the other two or three, and you can keep Jimmie with that teacher more of the time. You immediately have more freedom to do this sort of individualizing that is implicit in the very definition of nongradedness if you also have team teaching. I won't say much more about it, because time is fleeting and I'm not really here to define or defend team teaching at this stage.

What I do want at this moment is to make crystal clear a strategic conclusion of our experience of the last fifteen years. Adopting the strategy of getting rid of the walls, at least the psychological walls if not the actual brick and mortar that separate teachers, will be the most helpful step that you can take in moving into the beautiful world of nongradedness. Don't forget that, and stay with that as a kind of operational principle, and you will find that you are much further along than anybody else that has ignored that strategic suggestion. I can also assure you that as far as our data are concerned, there is no reason whatsoever to be concerned about the social, emotional, personal development of children in connection with this sort of change. If anything ,the self-contained classroom comes out a poor fifth or sixth among the alternatives that are presently available, and no child, as far as I can tell, benefits more by having one teacher than he does from having several teachers available to him. There may be times when for awhile, at any rate, you might prefer to match one adult personality with a child, but on the whole our evidence very clearly suggests that the child is going to be much better off when he has legitimate moments of escape from any adult, including his own mother and his own father, for that matter. In fact one of the beauties of the master plan of having two parents for a child is that you can have team parenthood which is infinitely better than self-contained parenthood.

Another major discovery of our recent experience with flexible alternatives would be supported by what Frank Brown mentioned yesterday, largely through his examples from the infants schools in Lancashire and other places in England. He illustrated that the so-

called family grouping, or multi-aged pattern which has gained widely in acceptance, especially in team organized schools, grew partly out of practical necessity, but also increasingly out of the realization that it is much better for children to live in a society that includes not only their own age group, but at least one other age group as well. It is to be locked in a society of only their own kind, whether it be six year olds, seven year olds or eight year olds. Now this is going to creat problems for you because the curriculum of the multi-aged class is necessarily harder to devise and to manage than the curriculum of one that is geared to a certain type of child, like a seven year old, but believe me, we have very great reason to think that the child needs to learn how to associate, not only with children who are similar to himself in significant ways like chronological age, intellectual development, etc., but also with children who differ from him in significant ways, such as in age, in temperament, in learning rate and style, in tastes, and in overall personal development.

This again would be one point that I would like to argue publicly with Dr. Brown because he seemed yesterday to have given the impression that the only way to organize a high school would be according to those five phases, you know when you have homogenous grouping of the youngsters according to the phase in which they belong. I have visited his school. I was one of the consultants to his school in the days of its early development, and I want you to know that what he says is absolutely true, and what is said, rather I think too blatantly, in that film ..**The Improbable Form of Master Sterm.** His school is one of the greatest high schools that has ever existed on the earth, and the atmosphere in that school is infinitely superior to the average secondary school atmosphere that I encounter. It is certainly one of the best that I've ever experienced because those kids are really being treated each as a unique individual, and they have, in fact, as a faculty attempted to put each kid where he belongs, where he can succeed, where he can have respect for himself and all the rest of that. So don't misread my remarks as being critical of Dr. Brown or the position that he has adopted. I do, however, feel obliged to enter into the record either as a demur or as additional information that the Malbourne school can be better than it is, and will some day be better than it is, as they find ways of combining at least occasionally the kids from all five phases into general classes where they will study the same thing at the same time, for different purposes to be sure, and at different levels of sophistication. We have great need for creating situations in all

of our schools from primary through university in which children who are at different stages of intellectual sophistication, children who have different learning histories, different learning styles, and all the rest of that will be brought together in order that they may interact with each other and influence each other's development. A very important article was written on this subject, in 1956 or so by the men who developed the multi-graded plan in Torrence, California, and their title was, "By Their Differences They Learn." The fact children are different from each other makes it possible for them to teach each oher things that can't be learned by two peas in the same pod. If you are just exactly alike or nearly alike, there are indeed many things that you can learn together, and you can reinforce each other, so that homogenous grouping, especially for the sequential aspects of the curriculum, does indeed make sense and is a valid approach, but sometimes the only way you can really learn some things is by being in diverse groups.

Social documents point out very fervently that for the poor black child from the ghetto where nobody has much confidence in his own destiny, it's terribly important for him to go to a school in which he can interact with some optimistic middle class kids who have a different perception of fate, control, etc. Musical tastes, political attitudes, intellectual perceptions of things all of these need to put together in a mix somehow, and children who are on different ends of the various continua that come to mind, the different wave lengths, if you will, need to bump into each other and learn how not only to steal ideas and thoughts and attitudes and perceptions from each other but also how to communicate with each other. I have a theory, and I think it is a reasonably valid one, that part of our trouble in our adolescent world of today, the drug business, the generation gap that we hear so much about, some of the more bizarre, forms of protest to which children resort—these phenomena are partly the result of continuously segregated education in which some of our brighter, more intense kids end up in a blue birds reading group right off the bat, and when they go off into junior high school, they are put into the advance section, and they go on into senior high school in all college bound courses and into colleges with thousands of other kids who have gone through the same narrow experience as themselves. When they get into the college, they begin talking about how wrong the world is, their perspective is at least somewhat warped—and I don't mean the world isn't as bad as they say, and I'm not saying they shouldn't protest. In fact, I'm embarrassed that my generation took so many of the

things lying down that these kids refused to; so my sympathies are very much with them. What I'm commenting on is the bizarre dimension of their protest. I call to your attention that almost all those really bizarre moments of social protest and violence on our campuses have not involved kids who live more rounded lives. For instance, the relatively few of the young people at Harvard who were involved in our fracas last spring were kids who have not been on athletic teams. This is where I would point out there is at least more opportunity for a boy or a girl, if there are girls' athletic programs, to learn how to deal with ordinary human beings, than he usually has in his history class or his trigonometry class. Where they have to deal with referees, coaches, and the guys who sell peanuts, you know a lot of people other than just the highly intellectual, highly abstract kind of people they encounter in their classrooms. I need more time to elbaorate this whole idea, and this is one dimension of what I'm trying to get at.

What I'm really trying to get at is the notion that for every human being, whether he is at the top of this pyramid or bottom, whether he is one of the extremely right or extremely left, whether he is a deeply feeling person or a callous person, no matter how he starts off, his full development will be better facilitated by a school in which he can interact and mix with a whole range of other human beings than in a school environment which is very narrow. This is why, for instance, I find it hard to accept the notion of sex segregation in schools as institutions. To me this is basically limiting in that it deprives the kids of an entire point of view, the other half, the other side of the point of view, and yet at the same time I'm sympathetic with some of the recent suggestions, that, for example, in primary we ought to separate the girls from the boys for their reading, sometimes, at least, in order that the disadvantages that boys have in the reading program could be somewhat offset. I don't know if you realize that, but in the North American culture where almost entirely we staff our elementary schools with females, and where the reading program that we impose upon the kids is almost totally feminine in its very flavour and substance, 85% of the kids that are in the remedial reading clinics are boys. They are the victims of a feminine world, and yet in Japan and Germany, where they have mostly men teachers teaching in their elementary schools, the majority of the kids that are fouled up in reading are girls. There is a component operating here, you see, in which something is missing—the attitude and the perceptions of the other sex, so in

terms of sex and age, in terms of family background, socioeconomic and other, in terms of intellectual interest in any terms that you want to mention, we need to create a curriculum that will allow for this sort of inter-mixing, as well as a curriculum that will permit the segregation of those kids who learn in a certain way, and who can therefore reinforce one another.

Dr. Donald Durell, a distinguished thinker in our field, developed a notion of team learning which somehow is not as well known as it deserves to be, and so I'm trying to correct that situation. Team-Learning is an arrangement where you get four, five or so children who are virtually peas in a pod, as homogenous as possible to go through a succession of learning experiences together as a group. And the way it works is like this. Let's say you have five kids, and they are all average learners in arithmetic, and so at the age of 10 these kids are working in a fifth grade arithmetic book, and they're doing unit 21. Now all five of those kids start out by taking the pre-test on unit 21, and if they all get 40 or 50 per cent of the answers right, then that proves that they haven't mastered the stuff in this unit and so they need it. They work as a team for maybe a week, maybe two weeks, depends on the length of the unit, and they study together. They may go through the whole time without the teacher being involved even once, or she may work with them every day for a few minutes. It depends on what they need in the way of help. When they think they are ready, they request permission to take the mastery test, and all five of them sit down, and the clock goes on and they take this test. If all five of them pass at whatever has been defined as the mastery level, and usually 80% is the limit, they go on to lesson 22. If one or more of the kids fail, then all five go back for at least a few days of review and new preparation. And this means that the ones that passed become the intensive tutors of the ones who didn't, and they are helping each other. Then when they think they are ready, they come back and take the test again. Now if over several successive units of work, the same one or two children are the ones who have trouble, then maybe they should be in a different team so the teacher has to keep track of that, but basically if they are a well matched team, this is the way they can go through a succession of experiences. Basically it seems to me that what I've just reported is consistent with our whole approach to the teaching of reading and arithmetic, except usually we have larger numbers of kids in our groups, but the principle I think is a fair one, especially if your team is organized so that you can move your kids around to an almost infinite number of other groups, then

it becomes a very workable arrangement in which nongradedness begins really to mean something significant.

Three kinds of learning then will be possible for each child. One will be those school experiences in which he is essentially by himself, in which he is involved in such activities as working with technology or engaging in independent study, or being tutored by the teacher, or other activity in which he is working on pretty much his own terms and doing something that perhaps no other kid in the school is doing at this moment, although that isn't necessarily true. The next kind of learning will be where he is in the company of other children who are supposed to have a relationship with him during the process of working and learning, and those other children are in fact so much similar to him, that there is a process of sharing and re-enforcement going on in their lives. The third kind of learning that I'm advocating would be the kind in which children who are different from each other in significant ways would be given a common task like reading Silas Marner or whatever, and in the reading of it, in the thinking, talking, etc., they would be mixing views and contributing in a variety of ways each to the others development.

Now there are other ways of looking at the learning situations. One way is in terms of the number of children involved, and here I would like to make a couple of suggestions that we consider seriously. I wrote a chapter for the N. E. A. yearbook on **The Individualization of Instruction** in which I reviewed all of our experience and research in the area of grouping and concluded that probably the number 20 to 30 or so, which we had intended to regard as an ideal class size, is the poorest number we could have thought of for actual instructional purposes. Whenever we want children to work together, to interact with each other, to produce something, the evidence is very clear that the number should not get beyond 5 or 6, certainly not more than 8, and you know this as teachers because if you had any experience at all in setting up committees to work on this or that, you've learned perhaps the hard way, that when there are more than 6 or 8 kids in that group, either it has to break down into two groups or it will collapse in general. So 5 or 6 is indeed a number that we want to think of as kind of an ideal when children are producing something. Now similarily we have learned the hard way again that when you want to have productive discussion, which one authority defines as decision making—I think that's a good way to look at discussion—then the number of children involved, or the number of adults shouldn't get to be much more than 12 or 13, cer-

tainly 15 at the utmost. But we are so used to it. Remember what they said in this quote that I gave you, "the ideas have been in practice so long that they now seem natural and sensible," that to have a discussion with 25 or 30 kids is what we have seen as the only option; so we have gone ahead and developed a kind of a habit of doing it that way. But that's no good. If you do a psychometric study of that group, or even of how many kids participated, you will discover that only 10 or 12 at most are really involved in that discussion, and the others are auditors at best, and "freeze-outs" at worse. So if we have 40 minutes and you want to have a good discussion, if the teacher wants to be involved in discussion with each of 25 or 30 kids within that 40 minutes period, he would be a lot better off to spend 20 minutes of it with 12 of them, and the other 20 minutes with the other 12 or 13 than to spend the whole 40 with the whole group. Now this has tremendous implications for the high school in particular.

The main thing that a school does is to make possible a series of meaningful person-to-person interactions within the school, the main learning of skills, as has already been pointed out, like learning to read, etc., can be done by machines, but making some sense out of life requires the children to talk to each other, and to adults who are interested in them, and we should maximize the number of opportunities in which this talk is really relevant, significantly relative to the basic problems and needs that they have. One thing that I neglected to say about mixing older and younger children, if I may back up for a few moments, is that we have increasing evidence to the effect that this is beneficial not only to the younger children, but also to the older ones, because there is a roll reversal process that goes on. If you are an older child and you have a tutorial sort of relationship to a younger child, you have the possibility of learning from that experience in much the same way that teachers learn when they are teaching something.

I have one final argument that I want to deliver, and then we can proceed to the questions that I promised I would save some time for. Increasingly we appreciate that our success in working with children is very closely related to the attitudes that we have toward those children, and if there is anything that we must do as teachers ,it is to attempt to increase the basic optimism that we reveal to children in our attitudes toward them. There was a very significant study done a couple of years ago and published in the book **Pygmalion and the Classroom** by Rosenthall and Jacobson. Rosenthall began to suspect, as a result of his studies in the labora-

tory with real animals, that teachers in the classroom got differential results with the children partly because of the predictions that they made about the children before they ever worked with them, or while they were working with them. In other words, if you think Jimmy Murphy is a dumb kid, because Donald Murphy's brother was a dumb kid too, or the Murphys' in general are sort of dumb people, then it is much more likely that Jimmy Murphy is going to be a poor learner in your classroom than if you come to working with Jimmy with the attitude of mind which says that Jimmy Murphy is a special kind of a kid. Rosenthall tested this by giving a bunch of ordinary achievement tests and I. Q.'s to a large population of children in California whose teachers didn't know what tests were being given. They scored the tests, and they got the usual distribution. You know, some kids were way out here, and some kids way down here. Of the ones who had poor scores, two-hundred names were put into two alternate piles, eenie, meanie, until they got two lists of equally weak students; then they flipped a coin, and this list was the one they were going to do the experiment with. They took all the names on that list, and gave them back to the teachers, and they cheated, they lied, they actually were doing something immoral, I suppose, but they said to the teachers that these children were shown on the tests to have unusual potential for intellectual growth. Eight months later they repeated the testing process for all the children and these unusual children on that list had shown significantly greater gains in I. Q. and achievement than did the other list of children who had not been singled out for the teacher's attention. The change in the teachers' expectations regarding the intellectual performances of these special children had led to an actual change in the intellectual performance. Now the book is an interesting book, and you might want to look at it, because they speculate how this could happen. They finally, on page 180 summarize their speculations in this way: "We may say that by what she said, by how and when she said it, by her facial expressions, her postures and perhaps by her touch, the teacher may have communicated to the children of the experimental group that she expected improved intellectual performance. Such communications together with possible changes in teaching techniques may have helped the child learn by changing his self-concept, his expectations of his own behaviour and his motivation, as well as his cognitive style and skills."

Rosenthall told me about an experiment that he did earlier in his own laboratory that sort of led him to this. A lot of men were

working for him who handle his rats that go through a maze training. He began to suspect that some of the rats were doing better not because they were more intelligent but because they were more lovable as creatures. You know, there are some dogs that you just can't pet, and there're other dogs that you just can't wait to pet, and some cats and rats that are the same way. These were nice white laboratory rats, you know, and so he fooled his own workers the same way. He went out and got 100 rats from a breeding laboratory that he had never got ten rats from before, and when he got them he marked 50 of them in a certain way. Let's say he took some orange dye and dyed the left ear of every other rat in this cage. Then he brought them into the lab and gave them to the handlers and told them to put them through the usual training, and one of the handlers immediately noticed that half of them were marked, and he said not to pay attention to that. Then he deliberately went to the telephones a little later, when he knew that some of the workers would be listening, and he made a telephone call. It was actually to his wife, but he pretended it was the owner of this laboratory, and he said: "The rats have arrived, and I can hardly wait to see whether those 50 that were presumably bred for intelligence are going to do better." And he hung up and he went into his office, and had a paroxcism of laughter because he knew that the men had heard him. And sure enough, everytime the men would bring an orange-eared rat out of the cage, they gave it an extra pat, you know, because this was a high I. Q. rat. They gave it a little extra pellet now and then, but more importantly, when they were going through their maze, whenever the rat began to go the wrong way, there were the workers with their clip boards keeping track. Whenever the rats went the wrong way, these guys would tense up or say: "Hey, you, you are supposed to be so smart. How come you're going left when you're supposed to go right." And without really intending to, these men developed the communication system with the orange-eared rats that they didn't dare to use with the ordinary ones. And what do you suppose happened? The orange-eared rats turned out to be the smartest rats that they have ever trained in that lab. Now this expectancy effect, the self-fulfilling prophecy operates in your lives too, whether you know it or not. If you are a girl-oriented teacher or vice versa, or if you are a blue-eyed-blonde type—anything like that operates in our sub-conscious to tell us that his is an orange-eared little rat, tends to make that little rat, I mean kid, feel much happier about his relationship with us.

You've got a problem in making every one of your kids believe that you see orange ears on him, that you have confident optimism concerning his ability to come through. You have also indicated by the summary in this research an obligation to convey to these kids in changes in teaching techniques that you adopt when one technique doesn't work, that you are really with them, and you are trying because you know that they can do it, if only somehow you can find the right word, the right way. "Gee" Jimmy Murphy, "that didn't work; let's try using blocks then instead, eh!" Now this may sound like a dumb note on which a supposedly sophisticated professor should be ending a lecture on such a profound topic, but I'm convinced as I have never been before convinced in my life, that the success of the nongraded school or of any other effort that we may make to provide appropriate learning experiences for children is going to depend ultimately on our acceptance of those children as worthy of our service, and as important members of the society that we are trying to prepare them for. Unless the curriculum that they experience includes loving and accepting, flexible and adaptable teachers who are making all the necessary adjustments to make sure that kid will succeed, all our platitudes about individualizing instruction and fulfilling the needs of each God-giving creature for full personal academic and physical development are just words in the wind. Well I could let that silence go on for another 30 or more seconds, I suspect. Let us use this moment to rededicate our commitment to serving individual children. If we really have that commitment, how to make a nongraded school actually function will seem to us in retrospect as one of the simplest things we have ever done.

Question: Dr. Anderson, you mentioned the possibility of changing academic assignments from year to year. It seems to me that this has some real implications for certification policy where, for instance, you ask for certification in specific levels in certain subjects. I'm wondering if you would comment as how far you might change assignments, and how this might be done to tie with certification regulation?

Well I agree that this may be one of the sticky wickets that we will have to work our way through. But, for one thing, certification, though it is rather rigid, tends still to be inclusive of several age levels. For example, you get certified as an elementary teacher if you are going to work in the first grade, and you could in most American States and I suppose in most Canadian provinces teach

6th grade one year, and 1st grade another year without violating your own certification. Where it might get tricky is when you want to jump into the next level, like if a 6th grade teacher wanted to work in an 8th grade for a year, and if your certification doesn't overlap, then it might get a little difficult. The certification laws exist to protect the children from incompetent teachers; I think we could get them modified once we develop a position as to how one qualifies for a specific teaching job. Let the assignment be for a brief time, less than a full year, because some of the certification laws don't apply when the assignment is temporary; so we might find some way to outwit that problem, and ultimately, I suspect that we would have only a small fraction of the teachers who would want to make such a radical change that we would have to search for other than a fairly obvious solution. What I just said a minute ago, I might want to revise some, because, in fact, I think that the greatest benefits of this system could come to junior high school teachers who are in the middle. The senior high school teachers live in a world which is rather special and most of them like it. They try to make it as similar to university as they can. But, at any rate, the jr. high school teachers are sort of in-between. Many of them really would prefer to be in senior high school, and many of them have the teaching style and the attitude that is associated with senior high school, and it gets inflicted on children who aren't really ready for it or shouldn't have it. Now those teachers particularly, I think, could be enlightened, informed, and generally inspired by having an opportunity to work down in an elementary school for a time, even if it were only for a few months. Just to be associated with elementary teachers who have a different perspective on kids than do junior high school teachers, and then having them go back up into their junior high school teaching where they might prefer to stay would have a tremendously positive effect in their teaching. I think they would be much better teachers for having had that experience, just as I think it makes a person more humane when he has kids of his own who reach the junior high school level. I've watched junior high school teachers really change when they see how their own children have suffered.

Question: What happens so uniquely at the senior high school that would warrant a pay differential for them rather than for teachers at the elementary level?

You put me on the spot. That's a loaded question. But I must confess that my attitude toward this is that there isn't anything. The most difficult teaching probably is down in the lower grades

rather than in the upper grades. However, I am not implying in any sense that there is some sort of inferiority in the other kind of teaching. The thing is that most high school teachers don't really teach so much as they manage. They inform kids and all that, but they tend more to hold forth and to sort of manage an arrangement; just as I think the same is true in universities, whereas people who work with the younger children have a somewhat different kind of pedagogical problem. Their children are pre-literate, and specially down in kindergarten or in primary and have to be introduced to literacy.

Thus there are two different kinds of games. Probably teachers who go into secondary school teaching have different personalities and different intellectual and emotional needs from the ones who teach in elementary schools. People who go into elementary school teaching tend on the whole to be less interested in intellectual things and more interested in emotional things, and, conversely, people who go into secondary and university teaching are less interested in the emotional-affective domain and the part of working with children than they are in the intellectual side of it. It's what they teach that interests them rather than whom they teach, but this is one of those cliche or broad generalizations that is false many times more often than it is true. My own experience tends to belie that, because actually I was trained to be a secondary school teacher, then I moved into elementary and I have tended to have more loyalty to the elementary field than to the secondary field.

One thing that I probably should have said, and everyone would have applauded, is that no teachers salaries are high enough at this point. That is not just a crowd catering kind of comment. I think that one of the reasons why we do so poorly in our work is that we haven't had the incentives; we haven't tended to attract our fair share of the more intellectually ambitious people because of that fact. Those people who come into teaching and then have to make all kinds of concessions to the way of life that they will have, especially when they have children, these kids are really making a tremendous sacrifice that society shouldn't demand of them. On the other hand, I don't think it is right that all teachers of the same experience but who have different levels of ability or talent should be getting the same salary, and I'm basically sympathetic with what we call merit pay. The only trouble is that they are hard to make work, and we haven't at this stage of our development found really good criteria for identifying and rewarding those teachers that make the

difference in our schools. I think in another 20 or 30 years we will get to the point where we will have done that, and then we might hope that this kind of question will no longer be a current political one.

Question: Is it true there is an attempt to pay teachers on a differentiated scale in Massachusetts?

Well, not only in Massachusetts but in many of our states. There are now programs, especially those involving team organization, where the person called team leader is selected on carefully defined criteria and is paid a significant salary supplement in return for carrying a greater kind of responsibility. Differentiated staffing as a concept is beginning to dominate our professional literature, and I think there are a fair number of school systems where merit pay arrangements are in fact being made. However, this is not the prevailing arrangement anywhere that I know of, and, of course, it is very unpopular with teachers associations, whose members are for the most part better served as they see it by a standard policy than one that might discriminate against them.

Question: Dr. Anderson, in much of what we read and hear about nongraded schools, there is a great deal of emphasis placed on the importance of levels, and the importance of teachers meeting to evaluate pupils and the level they have completed and their readiness for the next level. I note that this morning you didn't make any reference to this, I was wondering if you would like to make a comment now with regard to what your philosophy concerning the importance of levels is?

Well, actually, I would have preferred that not to come up. In 1959 when John Goodlad and I published the first edition of our book, we included in it examples from Park Forest where I had been superintendent previously and where we had a level-orientated program. We also included several other similar examples, such as Milwaukee and in the appendix of our book we mentioned 30 or 40 places that were doing these things. Within a couple of years we realized that part of the book was doing more harm than good because it was causing everybody to adopt reading levels as if that were nongradedness; and so the main reason we asked the publisher to put out a revised edition which did appear in 1962 was that we wanted to get rid of pages 68 through 78 and the appendix in which levels was the game. Personally, I think that approaching nongrading through reading levels is an extremely primitive approach. However, I'm not saying it's bad. All I'm saying is that it's

merely a beginning, and when you get a whole book geared to a reading levels approach, it means that it is a primitive book and we have to get beyond the stages of primitive development into a much more continuous kind of program. We should probably see the curriculum in a nongraded school as being partly relative to sequential stages or levels, or whatever you want to call them, through which the kids go into their homogenous groups, most of this being skill development and partly non-leveled content which is more open-ended and within which the (heterogeonous) mixtures of kids can have common experiences. I tend to see the solution in terms of how you would organize a team rather than how you would organize an individual classroom. Let's suppose you have 4 or 5 teachers and they have 125 or so youngsters ages 8 and 9. In the old vocabulary this would be a 3 and 4 grade combination team. Let's say half the kids are what you used to call 3rd graders, and the other half 4th graders. Now in a set-up like that, I would say that when it comes to reading, there may be some children that don't need to be in reading groups at all. There may be some kids within that group who will be doing most of the reading on machines, but most children, of course, will need some sort of group instruction, and for them we would try to set up learning teams or homogenous reading groups, each group of which will work obviously in a certain level. One group will be in the three-two reader; another group will have started the four-two reader, another group may have gone on to the 5th grade reader, or whatever, and in each of these cases, the idea is to just keep going. When you finish one reader, go on to the next, and if that's what levels are, all right. But in the rest of the period that is devoted to language arts, maybe all of the kids, including the ones that are reading at the 8th grade level, and ones that are still reading at only 2nd and 3rd grade levels might have a common experience reading magazines that they get once a week or reading certain poems together. Similarily, in arithmetic you might have kids all over the place, depending on the level of arithmetic development that they have reached, but every now and then the teachers ought to find within the various arithmetic book units on topics such as measurement, or how pounds or shillings used to work in England, or other interesting things that don't necessarily have to be learned when you are in level 3 or in level 18. You can learn these at any time. And introducing units like that every other year in the team would mean that some kids would get it at age 8 and other kids would get it at age nine. It doesn't really matter when they get it, as long as they get it at some point along the way. Beware of any prescriptions that appear to

define nongradedness as levels because that is only the beginning. It is like describing a ball game as the first three outs. You have to start with the first three outs, you see, but there may be twenty-seven other outs.

Question: How do you stand with regard to IPI?

I am in favor of IPI, but I think that IPI, as it is currently developing, is a very sophisticated and highly advanced example of what you can do when you break down your curriculum into successive sequences of material carefully defined in terms of objectives, and where you are beginning to develop alternative detours for the different kinds of kids who run into trouble at one stage or another. But IPI—by its very definition, individually prescribed instruction, has a basic limitation. I won't call it a flaw, but it has a basic limitation in that it means that the child's school experience is segregated, is personal, and separate from those experiences of other children, and unless and until we find a way of combining optimally the individual experience that children have with the group work experiences like team learning that I have defined a little while ago, and the open heterogenous sorts of experiences that I'm advocating at this stage of my development in this field, it is inadequate. The ultimate will be a combination of IPI with small group work, large group presentations, and other appropriate kinds of exposures.

7 Dialogue on the Curriculum of The Nongraded School

DR. ROBERT ANDERSON

The following dialogue took place between Dr. Anderson and high school teachers on the curriculum of the nongraded school.

Dr. Anderson: In order to make a good attempt to meet your needs, I am going to receive questions and then weave them into a speech. So feel free to ask as many questions as you wish. When you place your question, I will repeat it for the benefit of the records.

Question: The first one basically asks me to indicate whether there are in fact distinctions between the several levels, and if we talk about a nongraded high school, does it have any inner and outer bounds? Is there a period of time and is there a set of standards that we will still identify with that level?

Question: This question is in response to a provocative comment that I made this morning linking high school teachers with college teachers in terms of their perspective and technique. You are asking me to comment on what the high school teacher model should be and whether this model should be carried upward into the university.

Question: Well, yes the team teacher project that has been going on in Barbados for the past few years is in effect my baby. I'm the chief technical advisor to that project and have been largely responsible for keeping it alive. That project hasn't involved secondary teaching, however. It's just in the infant and junior schools. It is, at the moment, in a state of suspense, while the evaluation phase is going on; so I haven't been down there for about a year. You are asking me to explain what is behind this project.

Question: You want me to discuss the problems of education in the nongraded school.

Question: What are some of the difficulties involved in timetabling?

This gives me a much better idea of the kinds of questions that you brought to the session. I'll do my best to give you some practical answers to these sorts of functional questions.

A further word or two about the Barbados experiment, and let me put it into a broader context. One of the interesting things that seems to be happening around the whole world is that the ideas that we have been trying to develop in the United States and Canada for the past 15 to 25 years and which are symbolized largely by the term flexibility are spreading. Within these patterns we have been trying to break away from some of the peculiarly entrenched patterns of vertical and horizontal organization of curriculum testing. These are being rapidly accepted in the Orient and other parts of the Western world as offering better models than the rather rigid models that they have had. In America the unique thing about our public school system is that economic and other restrictions in the availability of educational opportunities to children were viewed differently. We have an expanding economy, and we have a great need for educated people, and almost unlimited opportunity for anyone who gets it. The same holds true in France, England and Germany. In Barbados the school system has tended to be a limited access one. Only a relatively small fraction of the total population was in fact able to go beyond the most simple levels of education that were generally available. In the developing countries of Africa or the Caribbean only now are educators able to do something about their educational programs. They have a limited number of school places. These countries are only able to build a limited number of schools and to train a limited number of teachers. In the class society of Continental and Anglican Europe, where they have the problem of trying to preserve the privilege of the upper class people, they restricted the number of places, partially through design, and partly through the accident of the way the society works. What it boils down to, therefore, is that the school systems that are now beginning to adopt or have already adopted on any significant scale the notion of compulsory and tax supported education for all the children of all the people have found that the classic school models in which the classical studies are offered are no longer very relevant or workable.

In Barbados the emerging school system has been getting ahead of the supply of teachers, and one of the reasons they are interested in team teaching is that it promises to make possible more efficient use of the relatively precious individuals who have had full training as team leaders. They are supervising the work of junior teachers and having some significant influence over their professional development. In England the idea of nongradedness is

virtually unnecessary to advocate because English primary schools have tended, on the whole, to be very child-centered and to be much looser and more flexible with reference to the curriculum. Now what is happening everywhere in the world is that educators are translating books about nongradedness and team teaching into other languages, and the idea of team teaching particularly has seemed to a number of people to be perhaps the best possible answer to England's problems in really implementing the idea of quality education all the way up and down the line.

Now, one question had to do with the universities. One of them asked me, "What about nongrading in the University", and the other one about the model of high school teachers, and how it should vary from that of the university. First off, let me point out that team teaching probably has its roots in the university teaching system. In the university you have a hierarchical personnel structure with instructors and lecturers and lower ranking teaching personnel, and then assistant professors, associate professors and full professors, and heads of departments, deans, and other academic dignitaries—all in an hierarchical relationship to each other. And frequently, both within departments and within colleges that have cross-disciplinary offerings, the teaching is literally team teaching. That is to say, you have maybe a senior professor and four or five instructors or assistant professors who may run a big course like this one might be. There would be the sort of didactic holding forth by the professor, followed by section meetings and lab activities in which the jobs are divided among the court. Especially in medieval days, university professors customarily lived within an atmosphere of criticism by peers. In Heidelberg, for example, one of the first relatively modern universities to emerge from the middle ages, their lecture hall in the great university building there had one podium at one end and another podium at the other where the responder or the critic held forth after the lecturer had offered his thesis. And so there was a certain amount of dialogue back and forth, and there was kind of an adversarial scholarly relationship between one professor and another which had a very healthy effect on the students and probably kept the professors much more honest than if they had this captive audience to whom they could say almost anything without challenge. As you probably realize, in the European universities much more than in the North American Universities there has long been a tradition of aloofness by the professors. The guidance and counselling relationship is almost upheard of. In France the University of Paris really deserved to get clobbered the way it did

by the student riots a while back because their professors don't even have offices. Thus, there isn't any way of having access to those guys. They come in and spill their jewels and turn around and go back home again, and either you picked up the jewels or you didn't. And the examination system, of course, is very rigid.

With regard to what the high school teacher model is like, it shall be one of interchanging and sharing responsibilities and of differential levels of prestige and recognition in accordance with certain recognized standards. I, for one, find that this business about publish or perish, which is often criticized by those who don't publish, or who can't, or who won't, isn't all that stupid an arrangement because it does, in fact, force the professor to commit himself, to lay it on the line, and therefore to be vulnerable to the critical review of book reviewers and of other scholars who may, in fact, fight back. Now those traditions are basically at the heart of what I'm advocating for high school and elementary teachers. And I don't mean an adversarian relationship. But one thing that we're saying is that there ought to be differential responsibilities within a group of teachers, some of whom do the lecturing on that part of it for which they are qualified, others of whom do the small group teaching or, at least, some of them do it better than others and have some influence over the way their colleagues go about it. It seems to be both healthy and fruitful. The hierarchical distinctions that are made between professors and assistant professors similarly makes sense to me in terms such as I was discussing this morning about merit pay. If over a time a particular teacher acquires distinction in his command of the area in which he is teaching and some pedagogical skill within teaching, and if he has both the talent and the willingness to take responsibility for leading the team, making sure that the timetabling problems are in fact solved, the students are evaluated intelligently, that the various resources, audio-visual aids, and other materials that are available to the team will be wisely and effectively used and so on, then it seems to me that that role should have a full professor kind of flavor to it, and that sort of a role, if made available to the really great teacher, would probably keep more people in teaching than does the present system where you can be the best teacher in the whole school and yet be getting exactly the same salary as some "mutton-head" who started teaching the same year you did and teaches down the hall and is the everlasting embarrassment of everybody in the school. That kind of foolishness really has to disappear.

Nongrading and co-operative teaching at the university level really have a tradition of some standing, especially at the post-graduate level, where the masters degree programs are almost all fashioned according to fairly loose rules. For instance, at Harvard, ever since we had the Master of Arts in Teaching program, those of our students who are preparing to become teachers have never been forced to take an entire package of courses. We have always had certain kinds of latitude so that if they already have a good educational psychology course in their undergraduate days, we have an examination system whereby we can confirm that and excuse them from that requirement and let them take some other elective of their choice.

In the doctorate programs, of course, they carry these notions of flexibility even further in that you can't even finish a doctorate program without studying something that no one else in the world has ever studied. And we have a great deal of looseness in the way we define a program. Of course, I realize there are still some universities that do it by counting courses, credits, and so on. But these are our inferior universities, generally. And the better the school, the more likely that it operates in a genuinely nongraded way. In fact, twenty years ago, I was saying to audiences that there are at this point only two places in the whole school structure that are really nongraded. One of them is the pre-school, and the other is the Ph. D. program. Everything else in between is graded and rigid in some significant way. However, that's my experience. There has been now for five, six, or seven years a rapid increase in the number of courses that are evaluated on a pass/fail rather than by A B C D competitive rankings. This enables students to take the tough courses, the high risk courses that they might otherwise avoid lest it mess up their grade point average and reduce their chances of getting admitted to a good graduate school. Kids now definitely avoid some courses in high school because they're afraid they might get relatively low marks in them and spoil their grade point average. It doesn't even occur to them that they could learn something in the courses more valuable to them than getting their grade point average up. By taking gut courses, selling their souls to the teachers, going along with all the stupid homework—these are the ways kids are almost literally forced to be intellectually dishonest. And so nongraded or pass/fail courses have come along to give them a fresh start, a new chance, a new way of taking risks for which they don't have to pay so great a price.

Another way that colleges handle this problem is in accepting kids with good records in advanced standing, to some extent. For instance, when they give entrance examinations now, it's not so much to determine whether they're going to be admitted to the college. It is done after they are admitted, and it is a basis to determine what kind of a course section to put a student in. Not so very long ago, all the kids took Math I and then Math II, and so for some of the kids who were already very good in Math that was a waste of time. For some other kids that needed sort of a pre-math I, a kind of course to get up to snuff, it was a disaster. But now in places like Harvard, we've got about 25 different math offerings that are available to all the different kinds of kids that we have. And it is interesting that Mr. Puzie himself reported in his annual report a year or two ago that of the twelve hundred boys that were admitted that fall, more than half of them were admitted to advance placement standing in one or more subjects in their freshman year. About 150 of them, which is more than 10%, were admitted to sophomore standing in all subjects. So by adjusting at the moment of entrance, you are thereby permitting a really gifted boy to be right with the big boys almost from the beginning and the ones that just got in by the skin of their teeth to start at a lower level without penalty. It is interesting to note that even though as many as I just quoted are given advanced standing, only a hand full of boys out of each class actually elects to finish in less than the four years. Of course, the unfortunate explanation for that is the draft—the war in Viet Nam, which, hopefully, will not continue to be a problem much longer.

In its every course offering, Harvard is very flexible. It has in its catalogue courses that are marked for under-graduates and called Primarily for Undergraduates. There is another that says For Graduates and Undergraduates, and then another category primarily for Graduates. The boys can take courses in any of those categories for which they are equipped, and if they are very good students, they can do advanced studies very early in university. Suppose you are a sociology major, and you are thinking you would like to be a professor of sociology. If you get off to a good start in your freshman-sophomore year, by the time that you are a junior, almost all the sociology courses that you are taking will be those that are offered for graduates. In your senior year you would be taking courses that are primarily for graduates, with special approval of the department head. And then, what happens is that boys can go directly into doctoral programs, skipping masters degrees, and often, in fact, getting their doctor's degree within a very short time.

Dartmouth, again, has a new pre-medical program which is going to make it possible for the boys to actually finish their medical studies and have their M. D. degree when they are 23 years old. That seems to me to make much more sense than the present arrangement where typically you have to be 26 or so, and then take a couple more years of special training, so that you are practically an old man before you have your first patient and really get going.

Now I haven't really filled out the question about the high school teacher model. Let me say this much: I think the high school teacher can and should be more like the university professor in relationship to the students than has been the case in the past. Largely because over the last decade or so we have failed to take account of the far greater maturity of the students in high school. Now, some of them are still miserably adolescent and immature. But the fact is that most of them are far more knowledgeable than we were at the same age. They are even biologically older than my own generation, if we can believe what the geneticist and others are saying that in one generation, that is from the time I was born during World War I to now, that girls reach the menstrual cycle about three and a half years earlier than my wife's generation did. And boys, similarly, enter puberty much sooner. They are taller and bigger. They have seen much more of the world, both literally in terms of greater ease of travel and also vicariously through the television tube and films. How much more about the world do these kids know at the age of twelve than I knew when I was 22? There weren't movies like "I am Curious Yellow." There are all kinds of things that just didn't exist when I was a kid. I'm not saying that all of this is good, but the fact is that it's there, and for us to run our high schools in the same arrangements that apply to our penal institutions, which assume that you have to have wardens checking with rifles in every corridor to make sure that kids don't run to the halls, and a teacher stationed at every boys' john to control the smoking, is very unfortunate. But the fact is that these things go on in the world, and for us to be so concerned about beards and dress and smoking rules and things like that is kind of ridiculous when as far as the kids are concerned, all these things are already settled.

For the most part, kids can be trusted. And given the opportunity to be in and out of the school the way university kids are whenever they don't have a class, high school kids on the whole will be responsible. There's one hooker in this in that the community expects us to supervise, to have custody of the kids, to keep them off the streets, out of the gas stations, and away from doing the

things they do in the summer without anybody getting upset about them. But during the regular school year we are accustomed to having the school serve that sort of police custodial function. And I think that we're going to have to develop a system whereby, even in the elementary school, the kids begin to demonstrate their willingness to carry responsibility. Use the model, if you will, of the trustee in jail, the trustee who for some reason has made a mistake, but he's sufficiently rehabilitated so that now he can be let off the premises at night or outside the gate. And of course, if a trustee gets caught doing something that he shouldn't be doing when he's enjoying that particular privilege, they slap him back in the place without his trustee privileges, and he's got a lot to think about.

But why not let kids over a period of time up to the age of 12 earn the trustee status, and then extend it into the junior and senior high school, as long as they don't violate it. One of the ways these kids learn is by making mistakes, and we have to have some leeway here within which they can indulge themselves once in a while. But granted that slight flexibility, why not, then, let them be in more control of their own timetable, arrange their classes with the help of their homeroom advisor or guidance counsellor, or whoever handles it, in such a way that they might have a couple of consecutive free periods when they can work for an hour down at the A & P as a checker or whatnot. These are the things that build reliance. Margaret Mead tells us that one of the things that's wrong with our kids these days is that we have child labour laws that prevent them from having a significant kind of working experience.

This would mean then that the teacher would have much less of a prison-guard relationship to the kids. We would be much more inclined to deal with the kids, as, not equals exactly, but almost like peers, accepting as a premise that they are as interested in the well being of the school and in their own education as we are, and therefore, can be trusted to make some intelligent decisions. Frank Brown has a quest phase of study in his school. Well, the best thing about his school, I thought, was the arrangement that he had for the relatively few outstanding scholars in his school. The most promising kids were excused from regular classes, assuming that they could pass mastery tests in the fundamental disciplines and thereby demonstrate that for them the usual courses would be a waste of time. To register in the quest phase of biology as independent students, they would be scheduled into the day according to the free periods of the biology professor who could actually supervise them

in some independent project. And then every day the kids would go to the lab at that appointed hour and do their thing, and the teacher, being nearby, could be called upon for help in case something went wrong with the equipment or they didn't know why the tadpole died, or whatever. Maybe once every two or three weeks they have a 5 or 10 minute accountability conference with that teacher in which they sort of get their bearings. But for all practical purposes, it's like a Ph. D. student doing a research activity with help from his professor as needed. Now I think we could do that with average kids, because I think it would be possible to set up our tests in such a way that, for instance, in a geometry class there isn't any reason why the geometry course should be ten months long for all the kids. Some of the kids can race through that book and finish whatever you call Geometry One in a matter of weeks. A larger number of them could do it in a matter of three, four, or five months. A still larger number could do it in six or seven months, or eight anyway. Now a small percentage of them on the other side of the line might need twelve months or thirteen months.

To play the game the way we do is very defeating because more of the kids end up hating geometry than liking it. Most of the weak students don't learn it all because they have to go through it too quickly; and most of the brighter kids are actually offended by the amount of stupid busy work. They have ten times as many problems at night as they would really need to do. But the only way the teacher can keep them under control is by overwhelming them with quantity if they can't give them quality.

Question: Is there the danger of a child being pushed?

Yes, definitely, but the danger is probably less if you have a nongraded philosophy really functioning in the hearts and minds of your teachers. Children learn in different ways. Some kids have, more or less, long range intellectual potential, and we don't know which ones are really going to end up being very bright and very knowledgeable. It's always premature to make judgments about this, as the Pgymalian Study reminds us. But one thing that is certain is that to have a timetable within which, let us say, Geometry I is geared to the average simply means that some kids are going to be wasting time and be bored. And I'm as concerned about that as I am about the danger of pressuring the kids too much. I think, if anything, the present system substitutes a kind of work-a-day physical load pressure which is probably as annoying to the kids as the emotional pressure that I suspect was implied in your question.

If you teachers are really trying to tune in to the best learning rate for each kid, and if you are making it interesting, and especially if there is some kind of dialogue with the kids about how they feel about what you are doing now, then probably you ultimately will arrive at a comfortable pace, and from there on the pressure should be just right. None of us who are advocating nongrading are advocating getting rid of most of the pressure associated with grades by trying to make the schools a soft touch for anybody. My definition of nongrading has these words in it—relevancy and appropriateness. Pressure is a good thing. The right amount of pressure on everybody is what makes the world go. I'm more productive because I keep myself under a certain amount of pressure. I've got seven books overdue right now, for example, and two or three of them I'll finish within a very short time. I think I'll work better when I'm under a certain amount of pressure. But one of the things I like about being a professor that wasn't true when I was a school administrator is that most of the pressure I can control myself. I can say no or yes to one more speech or one more book, whereas the Superintendent of Schools, poor fellow, can't say, "Sorry, I have had too many phone calls already this month", when an irate parent calls and hang up. He has to listen to that phone call and have a good stiff scotch and water afterwards. Pressure can be too much. But, ideally, we try to adjust it so that is is as nearly perfect for each kid as we can make it.

Now the next question that always comes up is: What about the kid who is not motivated? And usually this comes from a frustrated father who's been bribing the kid by giving him five dollars for an A, and all that sort of thing. And so the kid has been progressively more and more alienated by the system and finally says "nuts to this." There is no such thing, in my opinion, as a child who isn't basically enthusiastic about learning. But what happens is that that basic enthusiasm is ruined by the way he is taught and by the ways his parents respond to his school performance. So after a while, sure, he's disinterested.

Maybe the key to the high school teacher's dilemma is just to get out of his way and help him to learn the things that he wants to learn. If what he learns results in success and in his mind he is with that success, then it follows that he is going to be much more confident in himself as a person; he's going to be much more confident in himself as a learner, and he's going to be much more interested in further learning in whatever it is he is studying because that's

the kind of thing he sees himself as getting good at. Do you see my point? And so, when the game is being played right, your problem is to keep these kids from burning themselves out voluntarily. Certainly, they do this in sports. Our varsity athletes often are out there in the field beating themselves to death because they get so much satisfaction out of winning races, tackling opponents, or by doing whatever they do. It becomes a kind of all-absorbing activity for them, and they get all kinds of awards from their peer group. There isn't any reason why other kinds of learning can't be made equally satisfying to a normal healthy kid.

Question: What about the slow learner?

My guess is that for everyone that really can't and who fails, we probably have ten who could have but didn't. And the difference may be, in some of those cases, the length of time that we allow them. But remember this: there is such an animal as a slow-learning bright child. We are more familiar with the fast-learning bright child because those are the guys that we have found easiest to teach. And then you have that great problem of late bloomers. There are in fact families, there are whole clans, I suppose—although I hesitate to even suggest which clan I mean, but there are in fact whole groups of people whose very life style, perhaps whose very physiology is such that they need a longer time to grow up, either in one or several ways. I'll never forget this situation. I was very much influenced by this when I first was a teacher in Wisconsin. I lived with a Norwegian family. They had a bunch of kids, one of whom eventually ended up as a teacher for me when I was Superintendent. Her older brother was like his father before him, and his father became a distinguished lawyer in his mid-thirties. He didn't finish college until he was in his late twenties because he was just sort of one of those Peter Pan types that needed some extra time to become an adult. This little boy Peter, whom I first encountered when I was his seventh grade teacher, was already going on sixteen. He was much older than the other kids, yet he was way smaller than most of them. There was only one other peanut in that class who was as small as he was. Later Peter grew up to be a fairly normal sized boy. His voice didn't change. He still had a little peach fuzz when he was 20. He didn't shave. His whole development was geared to just a remarkably slow timetable. And yet he's a genius. He's living off his independent income from some inventions that he developed when he was in his mid-twenties. Then in that same class I had a boy who was only ten. When I first encountered him in the 7th grade, he had skipped two years up to that point, and he was the

best student that I had in those days. He went on to the University of Chicago where he got his Bachelor's degree at the age of 18, and he had his Ph. D. at the age of 21. If any of you have ever drunk Metrecal, you are indebted to him; he's the genius behind that. To give a different example, I had a very bright guy in my class at that time who is now in charge of the Blue Cross-Blue Shield for the Eastern half of the United States. He was the biggest kid in his class when he was ten. These two boys are just beautiful examples of what I'm trying to say about the range of difference among youth.

So remember the slow-learning bright need attention too. They sometimes have difficulty with subjects like algebra and geometry which are not really difficult. In fact, a lot of the things that we now teach that used to seem difficult are no longer difficult to the kids. Any kid who has been through a decent math program in the elementary school in the last three years must find the math that I found to be almost impossible in college to be very simple. They have a whole new way of looking at these things.

Let me get back to the issue of what the high schools should be doing. I've said some things to suggest some kids could in fact finish high school a lot earlier. Others might need to finish it much later. I tend to feel that until and unless we do in fact change our position as a society about the **in loco parentis** responsibility of the schools toward our youth, it will probably continue to make sense to keep young people in a public school of some sort until they are about 18 years old. On the other hand, I think that some youngsters ought to get away from school at the age of 14 or 15 for a while and take part in work-study programs. There are cooperative arrangements in some high schools now whereby a kid can work in a factory part of the time and then go to school for the rest of the time. But basically the normal sort of population with whom we deal should probably continue to be members of their own families, to live with their parents and their brothers and sisters, and to have the peer-group associations that have developed in our culture until about age eighteen. We may ultimately come to define the high school less in terms of the content that is covered and more in terms of the period of life with which it deals. Some people have even been suggesting that with the way things are going, as kids learn more and more in high school, as college becomes sort of redundant and useless, maybe we'll get rid of the four-year college, and kids may go directly from high school into graduate school.

Meanwhile, let's say that the junior high school, the middle school, then would begin to deal with the kids when they're somewhere around ten, and the senior high school when they're somewhere around fifteen, and within that period we would offer such courses as these kids are ready for. This means that many of you will, in fact, be college teachers because your kids will be studying what in 1969 is being offered to freshmen.

Be that as it may, the secondary school, I think, should continue to be the kind of place where the kids grow up together, where they're introduced to peer-culture at sort of an adult level, where they first learn to govern themselves, to take responsibility for the very life of the school.

To close out this presentation, let us look at several questions about the actual working of an ungraded school. Timetabling procedures for a nongraded school really are very complicated, except when we may begin to think' in terms of more flexible periods of time. For example, teachers are not necessarily teaching geometry all term to a group of kids but rather trying to bring all of them over whatever length of time it takes to reach a certain point of mastery and then passing them on to another kind of experience. The procedure of course selection, it seems to me, might be turned over to the kids themselves. And now that computers are here, and kids can understand computers better than adults, it would seem to me that we might set up in each school an honest to goodness committee of the student government which is responsible for setting up the schedules of the course for the year and for instructing the computer as to what should be done when kids finish their courses ahead of time. Why should the administrators figure all that out. It would be a beautiful problem for some of the best math students in the school to work out.

Similarly, when it comes to curriculum, why not open a course like literature at the beginning of the year with an honest to goodness invitation to the kids to have some real say in what they will study this year. And, of course, they're going to come up with Allan Ginsburg and what not. But it's much better that they read that dope in class than that they read it outside. In fact, these are many areas in which we could rely a lot more on decisions by the children. Let them, for example, wrestle with the question of how you supervise and discipline them. They are much likelier to be able to resolve those problems in some intelligent way than are the teachers.

Somebody asked me to follow a kid through a day in a nongraded school. Ordinarily, I would think that a student in a nongraded high school would have pretty much the same sort of a timetable that he would have in a more conventional school. The difference lies in the kinds of satisfactions that are possible for him. In all likelihood he would report to some central place like a homeroom at the beginning of the day and then depart from there to wherever he has to go. Students go off to where they belong. Presumably, a student who is especially good in math but not so strong in English would find himself in a more advanced math class and a less advanced English class. I would hope that in the course of adopting my suggestion about heterogeneous group experiences that maybe one day a week a kid would find himself in a mixed class of kids in English class and a mixed class of kids in math class in which there is a slightly different curriculum, and where he is working along side some kids who are far ahead of him in some things and about the same level in others.

If in the course of this hour and-a-half I have said a few things that do elucidate and elaborate on the idea of nongradedness, and if I have helped you to see what I believe to be the essential point of the whole thing—to treat kids decently, to impute to them more adult rather than less adult capability, and to put more of the privilege of decision making in their hands, I think we can work together to turn the game around and make the high school a much happier place, not only for the kids but also for the teachers.

8 Organizing The Nongraded Elementary School

DR. WILLIAM GRAVES

In its ultimate destiny the nongraded school—whatever its geographical location—whatever its local administrative and curriculum configuration—is a facilitating device aimed specifically at one goal: more individualization of instruction.

The extent to which a school may achieve this goal is directly dependent not upon the fact that it may become "nongraded", but rather upon the commitment it seeks to implement the objective of meeting individual student needs.[1]

In this sense the act of nongrading becomes a gateway or a door, through which one may pass easily in order to arrive at the host of avenues and channels which represent additional decisions and choices to be made in the construction of a more individualized environment.

Essentially these decisions involve **staffing patterns, student materials, evaiution programs, scheduling capabilities and uses of physical facilities.**

Before one can begin to investigate any of these components, however, a complete rationale for the schools education program should be identified by the staff involved, so that at each point along the subsequent decision-making curriculum building process a criteria will exist against which the validity of each decision may be checked.

To assist in this process of rationale identification", I would like to offer a simplified outline for specific student goal identification which the local faculty can and should become highly involved in "filling-out", as it were, or adding the specifics under each major heading which most succinctly meet the conditions of the local culture in which the school program is planned. In accomplishing this task I would strongly urge the use of behavioral objectives as described by Mager[2] in order that the learning accomplishment by the students may be more precisely measured.

A Philosophy for Nongraded Schools

The philosophy upon which this simplified taxonomy of educational objectives is based requires that one view the child as an in-

divisible, totally unitary behaving physical being, whose behavior at any time is the resultant vector of all of the forces acting upon him both internal and external. These forces may be (for purposes of illustration), social, physical, emotional or cognitive in nature—and the point is they are not mutually independent. Rather they are mutually interdependent. For our immediate purpose of clasification, these components are:

I. Cognitive development

II. Social competence

III. Physical fitness

IV. Personal integrity

Of these four classes involving human behavior, I would select the first two for more extensive comment in relation to the nongraded school and mention the last two only as a point of necessity to complete the behavioral characterization of an "educated" person or student for whose development we share a responsibility.

While it is always somewhat specious to attempt a delineation between cognitive and social competence it is not without value for analytical purposes. The early school years are heavily weighted with communication curriculum activities; and inversely the **functional** areas, or cultural use of these skills within substantive areas such as "geography", "history", "science" and the like, begin in a modest way, increasing in amount with years in school until "proficiency" is assumed at higher grade levels. Those schools who interpret nongradedness as a "levels" program in reading (and or mathematics) are relegating the treatment of individuals—(for purposes of meeting their respective needs)—to a single cognitive area, often not more sophisticated in the skills area than Bloom would classify it, at the "translation" level, which is in the order of seven on a twenty-one item scale in depth.[3]

The point for nongradedness here is that (a) it is but a modest beginning when set in the context of the skills area. As such it permits flexible units of time for the student to occupy himself in without being socially or psychologically penalized by having to "fail" or "repeat" a grade when at the end of any given academic year he may not have measured up to the "passing" standard. By the same token teachers working with more able students should feel free to explore curriculum topics both horizontally and vertically without fear of violating the sacred materials usually allocated to a single grade in the traditional graded system.

Up to this point we may see that nongradedness has taken into consideration but one major objective of the curriculum—cognitive development—and at the best here, but two substantive skills areas. What of "social competence", "physical fitness" and "personal integrity"?

Certainly one need not involve the entire staff in physical fitness concerns at this point. **Ca va sans dire** at this juncture that specialists are employed to insure this facet of development along with the entire curriculum spectrum of health, nutrition, and mental hygiene.

Social competence deserves a word, however, for in the search for operational and administrative "guarantees" that the student really is on a "continuous progress" continuum, there is a real danger that functional use of skills items learned out of context may not be related across the functional skills line, as shown in the previous figure.

A classic illustration of this point describes the youngster who wrote for the teacher on the chalk board after school, one hundred times: "I will not say 'ain't' any more". After an hour filling the boards he added, "Dere teacher, I writ this 90 times and there ain't anymore room, signed, Willie".

The particular argument here is that whether in a self-contained classroom or whether in a flexible group setting, the teachers of both social studies and language communication should reinforce the student by alertness to correct communication forms **in those areas where the student is** demonstrably weak and needs more opportunities in context to practice the forms in various ways.

This concept of learning through mutual reinforcement in both **functional** and **skills** areas of the curriculum is practically impossible of attainment in a departmentalized organization. It is difficult

in the self-contained classroom unless provision is made for it and can be a source of confusion where flexible groups or team teaching is used unless specifically programmed into the teaching strategy.

For curriculum planners who are interested in the behavior of students as "end-products" of the system—as developing and functioning persons—I would say categorically that nongradedness has no direct contribution to make in the area of social competence as compared to cognitive development. Whether or not the student can lead a discussion group, explain a mural, make a bank deposit, or write an account of his travels for the local paper, **depends directly** on the amount of exposure to the experience and apportunities that he has actually had to lead a discussion group, explain a mural, make a bank deposit, or relate his travels. These are the experiences which make him socially competent and which can be programmed into the curriculum by using such a curriculum building criterion as Bloom's.

"Personal integrity" as another curriculum building block cannot be ignored when exploring the avenues of nongradedness. In this area we are concerned with the kinds of "confrontations" the student gets which bring him from a sense of awareness to various elements and topics of the curriculum through "willingness to respond" to a final sense of satisfaction in the development of a sense and **system of values** for the cultural elements which comprise both the content and process of all curriculum experiences. Krathwohl[4] has just begun to explore this area and Amidon-Hough[5] brought it to a finer point of examination through analysis of teacher verbal behavior.

Nongradedness can lead to realization of objectives in "Personal Integrity" when it produces a flexible environment for grouping students into interest groups for specific substantive areas. In fact, the only value which nongradedness may have towards realizing this objective is the creation of a sense of larger student units than traditionally graded groups with age as a controlling factor. More intensive interest can be generated in specialized small (8-12 students) interest groupings in science and the humanities when age is not a controlling factor.

Carl Rogers,[6] in describing teacher behavior, illustrates very clearly what potential exists in small, highly interactive groups. Add to this the concept of student involvement through small group

teacher-pupil learning-planning, as illustrated by Hanna[7] in "Selecting a Unit for Multigraded and Ungraded Schools"—and you are really "in the ballpark"!

HOW TO NONGRADE A SCHOOL

In developing a plan for nongrading a school the best advice is "Look Homeward, Angel," to borrow from Thomas Wolfe. By this I mean "don't style your school after anyone elses" Why? Because (a), half the rewards of the new experience is by doing it yourself and (b), there are no best models—there are simply hundreds of "models" to follow and the one that works best in the final analysis is the one wherein one's own hope and aspirations are indelibly marked.

The process of nongrading, then, instead of a linear model to sequentially develop, is really more of a **mosaic,** in which key ingredients may be identified but their shape, configuration, color, and hue are distinctly individual for any given school or organization. What then are the key mosaic elements?

PURPLE IS FOR PEOPLE

Focal to overtures to nongrading involve examination of the nature of the professional personnel involved. The first selection in the mosaic then is people and how they work. The **principal** and his staff, as far as innovation is concerned, must be the first point in self-examination. On this point Lippitt[8] is quite clear:

> "In light of our research findings, certain aspects of the principals' influence on adoption seem to be clear. The greater the frequency with which the principal was seen engaged in such activities as offering constructive suggestions to teachers, bringing educational literature to their attention, talking to them about their personal and professional activities and growth, or showing that he knew what was going on in classrooms, the greater appears to be his influence on the degree of adoption."

So much for the principal. What of the teachers? Experience has shown definitely that all school staffs cannot successfully mount and maintain radical innovations such as nongrading a school. Many schools have nongraded and then reverted to gradedness because of their inability to support either psychologically or philosophically a system which is counter to their personal convictions.

A way out of this predicament is to survey or otherwise asses the staff. A second or more radical procedure is to recruit and utilize only those staff persons who may willingly commit themselves to the new concepts and processes.

A survey instrument[9] which assesses two teacher attitudes: "teaching flexibility" and "student support" is available and can be used as an inservice or preservice instrument upon which to base the estimated rate of change that may be needed in any given situation.

In summary here, for determination of the feasibility of nongrading both teachers and principal must be highly supportive of children and their interests, must be flexible in their teaching approaches with them, and should subscribe to a philosophy which, while **wanting** them to have **equal opportunity,** realizes that only a **most flexible curriculum** will really accommodate their variable rates and interests in learning.

GREEN IS FOR GROUPS

A next most vital consideration is: now that you have agreed they're different, what capability do you have for various kinds of grouping which will meet these individual needs? A school setting is essentially a group setting and children certainly enjoy working in groups. At the same time, however, we must realize that their learning satisfactions are most individual ones and not everyone at all times is going to gain much satisfaction from the "same old group". By the same old group of course I mean the self contained classroom.

What are the local possibilities for variations in groupings? Critical to this part of the mosaic are the answers to such questions as these:

> Do we believe that some groups should be small (3-6 students), some bigger (7-15 students), and some "normal" (16-30)?
>
> Will our situation permit two teachers to work together in any subject to plan and form new groups during the day? What auxiliary personnel can we call on to join with teachers to assist in manning different size groups during a given period (or module of time) during the day? (Librarians, P. E. Teachers, Art Teachers, Music Teachers, etc.)

What clerical help is needed to free the teacher to plan with others for instructional groupings? (Volunteer parents, aides, teachers-in-training, etc.)

What teachers would like to work together and which ones prefer to "go it alone"?

RED IS FOR RECORDS

A third major consideration is records and student materials. The faculty will do well to explore the following questions here:

What kind of reporting shall we make to parents on pupil progress?

How shall we record pupil progress that will help us schedule activities more realistically?

Shall we develop specific goals in the functional as well as the skills areas? Can we match evaluative criteria to behavioral objectives in all subjects?

How often shall we regroup in the skills areas?

What materials can we catalog for individual student study on an independent basis?

How shall we let students see their own progress and consequent study needs?

Who will assume responsibility for final allocation of time for students in various subject groupings?

What skills are covered in the materials we now have and what materials do we need next (in all subjects) to cover student interests and skills development not very well covered at present?

What scheme can we devise so teachers can have some time to work on the above items?

Light Medium Red is For a Little More Room

When considering the need for various size groups, one naturally thinks of the space available. Traditional school buildings, which can be utilized for various spacings and variable size group—while often built of indestructable walls, very often have odd spaces ings. Some adaptations which have actually been used (fire wardens

to the contrary notwithstanding) to create more different kinds of usable space are:

corridor corners
old book rooms
stages and stage anterooms
auditoriums
cafeterias
cloak closets
portable buildings
libraries
adjoining classrooms
gymnasiums

Obviously a new plant in the planning stage is ideally suited to flexibility if one prefers not to be committed to formidable one room self-contained cells but rather prefers an entirely open arrangement—and by and large the cost is no different since carpeting has proven itself and can be paid for out of wall construction savings as demonstrated by so many new schools. Neither must the building be built for eternity. Many innovative and practical schools with flexibility in space development emphasizing open areas divided by mobile storage containers, need not be expensive or brick! Some venturesome schools are using steel outer shells with attractive painting and proper insulation for as little as $7.50 to $10.00 per square foot.

Either way—by remodeling, improvising or new building—all agree the physical plant has a bearing on innovative instructional development. Criteria for construction seem to revolve around these most essential points:

There must be provision for future enlargement.
Teachers must have immediate access to teacher workrooms for planning and work.

Students must have spaces for independent, small medium and larger size groupings.

Students must have access to **interest** centers, where they can **explore** and **develop** further interest in science, social studies, and communication arts. These centers must have appropriate display, work and storage facilities.

Materials centers should be easily accessible to all (includ-

ing library collections and various media collections for both group and individual use).

Quiet work areas should be removed from noise generating areas such as food preparation, band music and P. E. groupings.

Health centers, administration centers need not be centrally located—these are special areas and may be somewhat detached as in the case of the noisemakers above.

PALE IS FOR PARENTS

Finally, when all the above considerations are at least partially conceived—we come to the moment of truth: what shall we tell the parents?

If the **climate** of parent-school communication is healthy and well established, certainly a small group of parents might even be included in the strategy for "going nongraded".

If the climate is untested and unknown, great caution must be taken that the faculty **knows** where its going before the parents are informed of the change.

Strangely enough, as I reported in "Principals Guide to Nongraded Schools"[2] the parents are usually **more receptive** to this innovation than the teachers. Why? Because when explained to them properly the parents instinctively want "something better" for their children. Teachers on the other hand, knowing **they** are the ones who must innovate, contemplate, plan, evaluate and "just plain work", are going to be a little more reluctant to change their way of living unless each step and path is cleared as you go. Bon voyage!

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9 Concepts and Definitions of Nongrading

MAURIE HILLSON

SOME REASONS FOR CHANGING THE EDUCATIONAL LOCK-STEP AND MOVING TOWARD INNOVATIVE FORMS THAT ARE COMPATIBLE WITH THE PHILOSOPHICAL, PSYCHOLOGICAL, AND SOCIOLOGICAL CORRELATES OF CONTINUOUS PROGRESS COLLABORATIVELY PLANNED AND TAUGHT NONGRADED SCHOOLS.*

Joseph Joubert once observed, "Words, like glass, darken whatever they do not help us to see." Some of the terminology and the increasing plethora of words that are used to describe many of the major innovative movements in American education frequently do not help us to see things clearly. They obfuscate rather than clarify. One example of this is the term "nongraded." This expression is basically reactive in nature. It indicates by the prefix "non," the absence of something, or the reverse of something. Yet it is often uncritically employed in a pervasive manner to identify all of the elements of an educational movement that is trying to do many things to more broadly establish education in a continuous progress fashion rather than as it is now found in too many situations; a lock-step grade-by-grade endeavor. When people discuss nongraded schools they are supposedly talking about schools that have done away with structures that are generally reflected in graded organizations. But, the term non-graded in no specific way indicates some of the crucial activities and components that are needed, that must be innovated or invented to establish and assure continuous progress education. Some people (one cannot call them educators) see nongraded education as nothing more than a program of administrative tinkering. They fail to deal with a vast number of scientific realities that insist that the school organization of today be a servant to learning in general. They fail to deal with the vast body of

*The material contained herein is drawn from the opening chapter of the forthcoming book, **Practical Approaches to Continuous Progress Education** by Maurie Hillson and Joseph Bongo (Science Research Associates Inc., Chicago, Illinois for 1970 publication.)

research that deals with fundamental educational change. And, they frequently use so-called-nongraded activities as compensatory grouping practices in certain areas of the curriculum rather than deal with nongraded education as a basic **intervention** and change in the **process** in education.

Few educational thinkers have succinctly and significantly described these new forms better than John I. Goodlad. He along with Robert H. Anderson gave strong impetus to nongraded educational endeavors with the publication of their book **The Nongraded Elementary School,** New York: Harcourt, Brace and Company, 1959. In his paper "Diagnosis and Prescription in Educational Practice" he observes that "Human variability demands alternatives." This, of course, is realistic.

But the crucial question for educational innovators may be: "What are the alternatives?" Goodlad goes on to spell some of these out in relation to school organizational practices. He says:

> Present patterns of school organization support common expectations for all learners, both in what is to be learned and in rate of progression through it. The graded school implies graded content specified for each year, graded materials, provision for individual, differences only within limits defined by the grade, and nonpromotion as an adjustment mechanism. The self-contained classroom sharply restricts the availability of resources for adequate diagnosis and prescription. Nongrading is proposed as a device for breaking the vertical lock step; cooperative teaching, for increasing the range of personnel resources available to an instructional group. Both preposals are receiving extensive analysis, support, and criticism in educational publications; both are being implemented in various forms at an accelerating pace.
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> Nongrading is essentially the removal of those grade levels which have traditionally marked the upward progression of students through the school. It raises the ceilings and lowers the floors of anticipated student performance to correspond more closely with the realities of individual differences. Nongrading, in intent, sweeps away the graded superstructure, graded content, graded textbooks, graded standards, and graded nomenclature to which we have long been accustomed. It facilitates the substitution of pupil progress uninhibited by grade

barriers; subject matter organized sequentially around fundamental concepts, principles, and generalizations; instructional materials distributed according to the task at hand and student readiness for these materials; excellence determined from actual performance rather than comparisons with others; and still other provisions.

That nongrading has not always lived up to the promises for it reflects, in large measure, our difficulty in envisioning fresh expectations for schooling. Nongrading is compatible with new thrusts in curricular and instructional thought it is markedly incompatible with the traditional expectations for education discussed earlier in this paper. Nongrading removes a large part of the system to which curriculum and instruction have been adapted, leaving teachers with more degrees of freedom in seeking to diagnose and prescribe.

Cooperative teaching is essentially an expansion of the self-contained classroom to embrace more students and more instructional personnel. It casts aside the traditional teacher-per-grade per-subject or group-of-subjects concept of teacher use. Instead of 30 students in a self-contained classroom with one teacher for all subjects, or in a departmentalized plan with a single teacher and one subject, visualize 75 or 100 or 140 students supervised by a team of teachers and teacher aides, deployed into instructional groups of various sizes, and space provisions appropriate to these groups. Co-operative teaching, in intent, is neither a self-contained nor a departmentalized plan of horizontal school organization. Rather it is a scheme borrowing some features from both and providing for much more flexibility in grouping pupils and deploying instructional talent. Like nongrading, it provides more alternatives in the educational pharmacy.

Taken together, nongrading and cooperative teaching open up many alternative clusters of students to which any given pupil can be assigned following diagnosis of his needs. Traditionally, teachers simply have received the group sent on by the previous teacher and have enjoyed relatively little opportunity to predetermine the composition of a class. The criterion for placement no longer is simply pass or fail but can be the estimated "fit" of pupil and teacher or pupil and group. Individual differences are

considered prior to as well as after pupil assignment to teachers and classes. A significant area of educational decision making no longer is in the realm of the routine and automatic but now comes within the teacher's span of control.

There is little point in talking about teachers as diagnosticians unless there are alternatives from which to prescribe. Nongrading and team teaching provide organizational alternatives not available in the conventionally organized school. Teachers are virtually forced to appraise each child carefully in weighing the potential advantages of one possible placement over another. They become diagnosticians for one significant aspect of schooling even before students are assigned to them. Hopefully, the diagnostic role begun outside of the classroom is extended into day-to-day pedagogy.[1]

The desire on the part of educational innovators for an educational reorganization to increase the opportunities of dealing with youngsters based upon the extensive reform movement found in education concerning the knowledge that we now have concerning children represents a very short history. The movement from a one dimensional graded school to a program embracing school activity wherein more flexibility is achieved, more alternatives offered, and better ways of dealing with pupils and their progress are addressed is not one of many years. The desire and activity aimed at eliminating competitive and comparative systems of report cards, and the repudiation of the types of report cards that base the grades of youngsters on a normative and irrational scale is likewise only one of a short history. The switch to the concept that every youngster should fulfill his potential is so very recent that it still is in its infancy in the approximately 73,000 elementary schools of the United States and too frequently only verbally embraced by many in the profession. The whole arena of humanistic practices concerning the manner by which adults should deal with children certainly is so recent that to find the exact time of its historical beginning is

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[1] Goodlad, John I., Diagnosis and Prescription in Educational Practice," in **New Approaches to Individualizing Instruction,** Educational Testing Service, Princeton, New Jersey, 1965. pp. 27-37.

quite difficult for the educational researcher.[2]

The great movement toward the individualization of instruction wherein programs offer different goals for different kinds of learners, wherein attempts are made to regulate timetables or learning rate in order to help youngsters acquire material, wherein differentiated learning materials are made use of in an attempt to modify the curriculum when rate is not the only problem, and wherein many strategies and approaches are used to enhance the individualized learning program by making suitable provisions for learning are all of recent vintage on the educational scene.

The history of nongraded education is a very short one indeed. There seems, to be however, three distinctive categories of activities that describe the attempts at making adjustments and differentiations in the educational program of the child during that short history. There are (1) promotional plans; (2) differentiated school work plans; and (3) administrative reorganizational plans. The reorganizational plans make up the genre that many in education are presently involved in and concerned with in moving toward new forms. Found in this category are those departures from tradition that lead to teacher and pupil collaboration, individualization of instruction, heightened individual contract learning, unhampered limitless progress in all areas of the curriculum, as well as a whole host of other activities, the objectives of which are aimed at developing the full potential of the child.

One classic model in educational history where one finds a fundamental school reorganization is in the Gary Plan that conceived of a total community school that operated on an eight-hour school day with continuation classes and recreation facilities available in the evenings and on Saturdays. The Gary Plan had great hopes for heralding in a new era of education. But it suffered from the insufficiencies of being well in advance of the readiness of society to accept it. Gary was an idea in advance of its time. At this writing it is interesting to note that many elements and ideas found in that plan are now being suggested to help solve the problems of the egregious situations that pervade the inner-city schools of the United States.

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2 An excellent discussion of historical movements in elementary education from the colonial period to the present movement of "Nongraded Organization Arrangements" is found in: Sowards, G. Wesley, "Elementary Education," **Encyclopedia of Educational Research** (4th Ed.) Robert L. Ebel, ed., The MacMillan Co., 1969, pp. 420-435.

There were three other significant plans that can be isolated in the historical movement of educational reorganization: The Winnetka Plan, The Dalton Plan, and The McDade Plan. These were all based on the heightened desire for the individualization of instruction and learning. They all put stress on individual student contracts in the two main divisions of the curriculum; common essentials and group and creative activities. However, if one has to pick the direct ancestor to the present movement of creating individualized, flexible, gradeless continuous progress oriented schools, it seems that the best example might be the training school of San Francisco State College where in 1913 Frederic L. Burke developed a truly individualized system. This system represented a distinctive break with tradition. Many of its components and concepts underwrote the activities that led to the progressive movements of the 1930's. Burke's insights were aided additionally by the new scientific investigation and research concerning the way children actually were and how they learned. All of this activity is coming to fruition at the close of the 1960 decade as we can see by the energetic desire of educators to work with these new forms of continuous progress, teaming, and individualization.

It could serve no real purpose in the context of this volume to move into a long definitive history of nongraded continuous progress education and attempt to draw all of the lines that seemingly lead to it. The purpose of this particular volume is basically (1) to take for granted the idea that the field of education and members of the profession feel that there is a need for doing many different things to insure better growth in learning, and (2) to deal with the fundamentals of how to implement these things. To stay true to this two-fold purpose, and thereby deal directly with the reality of the moment, the authors suggest that the history of this area be summed up by stating: A study of the reorganizational activities of the elementary school in the new world leads immediately to the conclusion that all of the attempted basic circumventions of the graded idea were honest attempts to eliminate the strictures that graded education insinuated on its users and recipients and to treat individual differences more realistically.

Many of the extant inventions, innovations, and implementations that are necessary to develop the capacity for competence in the performance of the children in school are now backed by empirical studies as well as highly plausible sounding insights relative to the whole area of philosophical, psychological, and sociological activity. The eminent educational psychologist, Benjamin S.

Bloom, seems to sum it up well when he says:

> Each teacher begins a new term (or course) with the expectation that about a third of his students will adequately learn what he has to teach. He expects about a third of his students to fail or to just 'get by.' Finally, he expects another third to learn a good deal of what he has to teach, but not enough to be regarded as 'good students.' This set of expectations, supported by school policies and practices in grading becomes transmitted to the students through the grading procedures and through the methods and materials of instruction. The system creates a self-fulfilling prophecy such that the final sorting of students through the grading process becomes approximately equivalent to the original expectations.
>
> This set of expectations, which fixes the academic goals of teachers and students, is the most wasteful and destructive aspect of the present educational system. It reduces the aspirations of both teachers and students. It reduces motivation for learning in students; and it systematically destroys the ego and self-concept of a sizeable group of students who are legally required to attend school for 10 to 12 years under conditions which are frustrating and humiliating year after year. The cost of this system in reducing opportunities for further learning and in alienating youth from both school and society is so great that no society can tolerate it for long.
>
> Most students (perhaps over 90 per cent) can master what we have to teach them, and it is the task of instruction to find the means which will enable our students to master the subject under consideration. Our basic task is to determine what we mean by mastery of the subject and to search for the methods and materials which will enable the largest proportion of our students to attain such mastery.[3]

In addition to the insights of Bloom, we have "a model of school learning" that was developed by J. B. Carroll.[4] He says that

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[3] Bloom, Benjamin S., "Learning for Mastery", **Evaluation Comment,** May, 1968, Vol. 1, No. 2, U. C. L. A. Center for the Study of Evaluation of Instruction Programs, p. 1.

[4] Carrol, J. B., **The Teachers College Record,** May, 1963, Vol. 64, R. 9.

educators must be concerned with at least five specific areas in an attempt to create mastery in the learning task. They are: (1) aptitude: the amount of time required by the learner to attain mastery in a learning task; (2) perserverance: the amount of time the learner is willing to engage in learning efforts; (3) the ability to understand instruction: the learner's understanding of the nature of the task that he is to learn and the procedures that he is to follow in the learning task; (4) the quality of instruction: the degree to which the presentation, explanation, and ordering of the elements of the task to be learned represent the optimum for a given learner; and (5) the opportunity for learning: the time allowed by the teacher or the school for the pupil to practice, and really, thereby, learn to perform the task. These five elements are attendant to a pupil's opportunity to become competent and grow in achievement. They underpin the concepts articulated by Bloom. They in turn buttress the larger movements aimed at the reorganization of the school so that more flexible, inventive, and innovative directions can be found to enable educators to provide those opportunities that take into account the different learning rates, styles, and modalities that are always found in any school population.

The expectations of teachers, according to much research, do fix the academic goals of both the students and the teachers. An impressive statement of recently collected evidence indicates that the self-fulfilling prophecy operates in all of the realms of education and it results in the kind of behavior that is expected. Even though there is now an accumulation of much scientific investigation of the self-fulfilling prophecy (mostly in the realms of sociology and psychology rather than education), it is now a new concept. Goethe, without the benefit of such scientific investigation, once observed, "Treat people as if they were what they ought to be and you help them to become what they are capable of being." It is now quite obvious that the converse is true as evidenced by the now famous (if not infamous) study reported by Rosenthal and Jacobson. These authors stated in the preface to their book that their study and report is about interpersonal self-fulfilling prophecies: how one person's expectation for another person's behavior can quite unwittingly become a more accurate prediction simply for its having been made. Their method was simple: "20 percent of the children in a certain elementary school were reported to their teachers as showing unusual potential for intellectual growth. The names of these 20 percent of the children were drawn by means of a table of random numbers, which is to say that the names were drawn out of

a hat. Eight months later these unusual or 'magic' children showed significantly greater gains in I. Q. than did the remaining children who had not been singled out for the teachers attention. The change in the teacher's expectations regarding the intellectual performance of these allegedly special children had led to an actual change in the intellectual performance of these randomly selected children."[5] The expectations obviously had something to do with the performance. Rosenthal and Jacobson summarize their speculations by indicating that the teachers who brought about these changes may have simply by their "facial expressions, postures, and perhaps . . . touch . . . communicated to the children of the experimental group that (they) expected improved intellectual performance. Such communications together with possible changes in teaching techniques may have helped the child learn by changing his self-concept, his expectations of his own behavior and his motivation as well as his cognitive style and skills."[6] Basically one can draw some theoretical generalizations from this study and then apply them in many ways and situations. At the present they undergird the argument for the creation of a different kind of educational program that may be obviously necessary if educators are seeking the kind of performance and mastery that the research contends can be attained. These generalizations in this context lead to a specific point of view; that continuous progress nongraded, collaboratively planned and taught educational programs may be both a better organizational as well as strategic approach to the education of a child rather than the other topics or programs that hitherto marked the educational scene.

If this assumption is reasonable, then what are the components of or elements of action that lead toward the creation of these newer forms? What are the inventions and innovations that necessarily have to be implemented in order to help build greater opportunities for attaining educational competence? Where should the emphasis be in changing the school context? On organization? On learning? On curriculum development? Or, are all of these fragments of a basic intervention that aims at changing the total pro-

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[5] Rosenthal, Robert and Jacobson, Lenore. **Pygmalion in the Classroom; Teacher Expectation and Pupils' Intellectual Development,** New York: Holt, Rinehart and Winston, Inc., 1968, pp. vii-viii.

[6] **Ibid., page 180.**

cess? And, if so, what does changing the process really entail? To these questions we now turn.

CHANGING THE PROCESS

It is extremely difficult to describe a model nongraded, continuous progress oriented, collaboratively planned and/or taught school. Heathers observes, "While nongrading or 'continuous progress' can be accomplished by differentiating instruction within any organizational pattern, many school systems with nongraded programs make use of multi-age grouping to bring together students who are at about the same level of advancement in one or more subjects. Other schools set up within grade achievement level grouping to facilitate differentiated pacing."[7] However, most of the attempts at nongrading aim at establishing different mechanical and curricular patterns that really explore and then try to (in the best sense) exploit the individual abilities and differences found in children. Many of the models being achieved attempt to embrace curricular designs and formats wherein some organizational flexibility allows for the proper placement of pupils based on needs irrespective of their chronological age or numbers of years in schools (multi-aging). The components found in these schools generally reflect attempts at appropriate placement of pupils, not only according to their learning rate, but also according to their style of l e a r n i n g . Rate is only one factor and not always the crucial one! The curricula of these schools are enunciated and articulated in different fashions. They are made up of learning tasks in various subject or skills areas. These are sequential, carefully planned out, and developed on a continuum basis from the most simple to the most complex, or from readiness (entry) to competency (mastery). Items are identified with a more sophisticated degree of precision and relate to necessities in learning that lead to true mastery. For the most part nongraded continuous progress sequences are **concept** and **skill** oriented in both their development and application. But most programs also have a due regard for and strong insistence on the attitudinal aspects of life or the affective concerns of learners in their pursuits in learning and living. Many nongraded, continuous programs do have similar features. However, all programs to some degree reflect the educational background, philosophy, and experience of those involved in its imple-

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[7] Heathers, Glen, "Grouping," **Encyclopedia of Educational Research** (4th ed.) Robert L. Ebel, editor, The MacMillan Company, 1969, p. 563.

mentation. Despite some of these differences—basically not of kind or orientation but of degree and emphasis—there is a great commality of implementation and activity.

The question one could ask is: What represents the fundamental core of items that may be indigenous to a well-thought-out program of nongraded education? The following list in answer to that question represents a non-exhaustive but realistic set of ideas or components usually formed in nongraded continuous progress oriented educational programs:

1) Each pupil is involved in a program where he fundamentally and he actually savors the benefits of continuous progress. He is the baseline (the level that he starts) and the only yardstick against which true accomplishment is measured, founded on a careful diagnosis of his ability to perform.

2) The activities and operational procedures in these programs completely eliminate the whole area of pupil retardation, promotion, and non-promotion. They are irrelevant and the body of research that supports this irrelevancy is vast and venerable.[8]

3) A wholesome consideration is given to the whole area of readiness at every level, but particularly at the earliest level so youngsters can be readied to become able to perform when they move to formal learning with success, rather than establishing a habitual practice of failure because they can not address the skills. By extrapolation it has been estimated that probably 90 percent of all reading failures in the schools are basically due to the fact that many youngsters are forced into the activity of learning how to read before they are ready. By the establishment of longer periods and different periods of readiness based upon a close diagnosis of the youngster, one can immediately see how the movement to a continuous progress, nongraded program embracing this idea would enhance generally the educational productivity of the youngsters involved. This readiness component is supported by and provides answers to what still remain the most cogent and basic questions in the field of educational development as posed by Ralph W. Tyler: 1) What educational purposes should the school seek to attain? 2) What educational experiences can be provided that are likely to attain these purposes? 3) How can these educational purposes be effectively organized? How can we determine whether

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8 See the end of the chapter for a bibliography of promotional problems over the years.

these purposes are being attained?[9] 4) There are no ceilings on learning in continuous progress oriented, nongraded schools. Schools involved in this arena of activity holding this philosophy need to commit themselves to programs of actual continuous progress. There can be no fear of encroachments on the materials reserved for the grades of later years because the material now used, the educational organizing features of this orientation, and the components of the curricula are articulated in waivers irrespective of and unrelated to grade identifications. 5) Continuous progress nongraded education is enhanced by the opportunity for collaboration on the part of teachers. Collabortion allows them to deal with problems in a far more fruitful way. By establishing opportunity for well planned, systematized continuous teacher collaboration and planning, various imputs are achieved and they result in programs and programming that are more fruitful in the never-ending desire to upgrade the educational activities of a school. Heather's comment not withstanding, Goodlad may be more accurate when he says, "Taken together, nongrading and cooperative teaching open up many alternative clusters of students . . . (and provides) for much more flexibility in grouping students and displaying instructional talent."

By using these features as underlying substantive components of continuous progress oriented nongraded education, a generalized description of a school in which these five elements are cleverly and sensitively juxtaposed, integrated, and otherwise used for assuring the growth of children might be as follows: one in which there are no longer any grade designations. Instead, there are various curricula defined in stages or levels of learning that are specifically created, sequenced, and clearly described for learners. The direction is to develop a prescriptive approach to the education of the youngster based upon a careful diagnostic workup derived from the various diagnostic tools that teachers have created to assess the pupil's needs, strengths, and weaknesses. The pupils are deployed to various groups for learning activities related to their specific conceptual and skill development. Teachers are also deployed for various reasons. Those who display strength and interest in a particular area are assigned to groups who need that area developed. The children as they progress through the continuous progress, nongraded program of sequential stages or levels of learning do so

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9 Tyler, Ralph W. **Basic Principles of Curriculum and Instruction.** Chicago, University of Chicago Press, 1950.

as they demonstrate competency or mastery in that area. Teachers without any fears of encroachment continue to develop the growth of a child to any level of achievement attainable. When teachers need to bring materials to the child that hitherto were reserved for a lower area of the school (or in older terms a lower "grade"), they are able to dip down, take that material, and make fruitful use of it. Within the context of the innovated school, no pupil is ever pressed into attempting to achieve a specified amount of learning in a specified amount of time regardless of his ability. Rather, the desire is to look at that individual youngster, see him as the focus of the program or baseline from which to start, and from that point of described need prescribe for him those items of learning that best satisfy those needs and lead to his heightened accomplishment. The children therefore grow more effectively at their own learning paces; rapid learners accomplish the elements of a generally well-thought-out program in a rapid fashion. More deliberate learners accomplish the material set out in a more leisurely but realistic fashion, and attain a greater degree of competence in established learning than is otherwise found in a graded situation. Rapid, non-problemed youngsters who normally are of concern in graded schools no longer are problems in this context. Their programs are enriched in depth. They are taught at learning levels that they are ready for. Youngsters who, on the other hand, were forced to work with material more difficult for them because of the imposed normative standard of the year-by-year grade organization now work with materials appropriate and pertinent to their particular needs. They start to build up that background of success that underpins future success at higher levels, albeit done over a longer period of time. The opportunities for activities that allow for programs of substantive educational depth as well as for longer periods of time where needed, because of the essential flexibility gained in the deployment of teachers who are working at appropriate levels to meet the child's needs, are more readily embraced within the framework of the continuous progress nongraded school. Educational progress is healthy in nature and likewise, the sound mental health of youngsters who accomplish at their own rate is enhanced. The continuous progress nongraded school also allows for the greater development of collaboration in both planning and teaching. Within the scheduling and timetabling activities of continuous progress, nongraded education, teachers may now leave the restrictive format of the isolated self-contained classroom. They are now deployed in much more effective ways, both in planning and in teaching. The collaborative planning format in which teachers become decision-

makers concerning the way to meet the needs of students becomes a worthy and relevant component of this type of organization and enhances the whole educational activity. Teachers within the collaborative planning framework learn to develop as well as become increasingly sophisticated in creating prescriptions in the learning activities. They create and select materials that are relevant and pertinent to the educational program. They address many groups by which evaluation can be oriented to indicate the level of accomplishment that has been achieved and the necessary reassessments that bring about new directions in the education of the child. They develop formulations concerning teaching activities to meet the needs of the child. Collaborative planning and teaching activities lead to multi-adult concern for the development of ideas that lead to the personalization or individualization of instruction and in general serve to move programs forward in the areas of curriculum development and organizational creativity. This last concept is reflected in a major position taken by Heathers as it concerns the whole question of grouping: "Writing an epitaph for grouping may well be the task of the reviewer of research on grouping for the 1980 edition of this encyclopedia. Even today it appears that grouping as a central theme of organization for instruction has nearly run its course and is in the process of being replaced by a familiar theme—individualized instruction— that became a focus of educational reform in the mid-1960's.

The concept of individualization has acquired such potency that it is reducing to subordinate status even those grouping arrangements being promoted under the banners of nongrading and team teaching."[10]

The authors of this volume, feel that, with all due regard for their colleagues who hold this point of view, it is somewhat premature. The activities and insights devised in this volume are drawn from the agony and action of the field. We agree rather with the situation as is, and as it is described by Goodlad:

> It should come as no surprise, then that comprehensive experiments in schooling are the rarest of all educational phenomena. Small wonder that teachers practice so little individualizing instruction, inductive teaching, nongrading, team teaching, or other recently recommended practices. They have not seen them. If teachers are to change,

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[10] Heathers, Glen, **op. cit.**, p. 568.

> they must see models of what they are to change to; they must practice under guidance the new behaviors called for in the exemplary models. If teachers are to change, the occupation itself must have built into it the necessary provisions for self-renewal. The creation of these conditions is an important agenda item for the decade ahead.[11]

It may well be that the theoretical ideas, creative conceptualizations, and proposed constructs for programs for elementary education are worthy of continuous perusal and investigation but the caveat of Galsworthy should be heeded: "Idealism increases in direct proportion to one's distance from the problem." The problem is of the here and now and there is a distance to travel before each professional is a clinical diagnostician and prescriptive expert. There are realities of present day educational circumstances that need to be addressed in order to get to the desired levels suggested in the areas of individualization in education.

A continuous progress nongraded collaboratively planned school can move through its organization and development of programs; the perceptive educator fundamentally moves toward a whole series of opportunities that spells out better education for the children involved. There are several reasons for this. (1) The approach to education generally becomes an open one rather than a closed one. The teacher is no longer thought to be omnicompetent in his all-day-long involvement with the same group of children. (2) The teachers on a day-to-day basis through their collaborative endeavors discuss the particular diagnosed needs of their children and plan programs accordingly. (3) The constant attempt to deal with the precise and appropriate needs of children rather than working with them in a diffuse way is enhanced. (4) The many tensions that are involved in all learning activities are lessened because teachers now become teachers of clearly defined needs and concepts contained in a narrowed context of reduced range of competence levels. They are no longer teachers who are expected to cover a large spectrum of performance levels found in any given classroom. (5) The teachers, because of the basic grouping procedures that arise out of the diagnostic activities, now move toward teaching specific emphasis as a result of this activity. It is a focal point for teaching procedure and can result, if perceptively done, in much more personalization or individualization in learning and teaching.

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11 Goodlad, John I. "The Schools vs. Education" **Saturday Review,** Vol. III, No. 16, April 1969, p. 6.

It is not within the purview of this chapter to support philosophically, psychologically, sociologically, and educationally why there must exist an intense and necessary movement toward the creation of newer forms of education by adducing what is now an overwhelming collection of evidence that favors such a movement. Many have written about the need and the extent of the problem.[12] There is a great deal of material available to the reader that will inform him of both the descriptive and empirical research that indicates that youngsters in nongraded, contiuous progress, collaboratively planned programs perform significantly better in measures of academic achievement than do their counterparts in conventionally graded classrooms. There is a growing agreement among teachers who have taught in these innovated organizational forms concerning the values that accrue to both them and the youngsters who are being schooled in this way.

The remainder of this volume turns rather to the development of the ideas and activities that relate to the objectives or components that the authors feel are essential to the fruitful creation of continuous progress, nongraded education programs. These are all concerned with implementation rather than with a philosophical posture. Each objective is represented by a chapter or major portion thereof. Each objective is accompanied by a discussion or exposition of a series of action guidelines that have proved helpful in the implementation of the objective.

To assure a greater educational opportunity for all youngsters through the establishment of flexible models that seek to intervene, interrupt, and redirect the present context by altering the process, certain commitments to some fundamental ideas need to be made. These become the framework for developing the change processes that move a school from a conventional form to an innovative form. The following represent components that the authors feel apply to this directional movement toward a continuous progress, nongraded school.

1) The educational program will be arranged so that every child is in an appropriate and pertinent place that reflects his educational development.

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12 See two excellent volumes on this whole area: Hart, Leslie, **The Classroom Disaster,** New York, Teachers College Press, 1969, p. 354.: Jackson, Philip W., **Life in Classrooms,** New York, Holt, Rinehart and Winston, Inc., 1968, p. 177.

2) There will be a clearly written curriculum (or curricula) that states both the objectives to be sought and the philosophy to be adhered to; it will be sequential, adaptable, and able to be defined operationally.

3) There will be a collection of items, elements, or techniques that will be used to diagnose the pupils' competence in relation to the objectives to be sought in the stated curriculum.

4) There will be a learning developmental inventory or a set of inventories that will screen out the various components of the diagnoses in order to be able to establish as precisely as possible a pertinent and appropriate learning stage for the pupil.

5) The learning stages, levels, or packages (whatever they are termed) will be arranged longitudinally, from simple to complex, and the organizing elements found in these stages will be those that are essential educational concepts, skills, and ideas needed by the learner regardless of his grade level, age level, or years in school.

6) There will be an appropriate reporting and record keeping system consistent with the sequential development in the educational areas and the operationally defined and adaptable curriculum.

In addition to the attainment of these six objectives, the need to develop a community involvement and relations program that is necessarily attendant to educational change is a requisite activity in any movement toward newer forms. The need to involve and educate parents to the adjustment required to accept various individualized goals of continuous progress education have to be carefully thought out and addressed.

Continuous progress, collaboratively planned, diagnostically based, and prescriptively taught, nongraded educational programs may well represent those elements of our overall aspirational model that lead on to the creation of better educational products, not only in academic achievement but in developing the kinds of individuals who are concerned about people and the welfare of the society of which they are a part.

There are some obvious problems and concerns that face those who attempt to create new departures, to invent, to innovate, and to change things in the realm of education. However, one can always recall the words of William Feather for sustenance as it concerns innovation, "The way to get ahead is to start now."

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10 The Pros and Cons of Nongrading

A PANEL DISCUSSION

Mr. Currie, Chairman:

During the past couple of days you have been busy developing the concept of nongradedness. The panel that we have assembled on the stage you are already familiar with because you have been working with them throughout the Institute. Starting at the far end, we have Dr. Joseph Eulie, Professor Maurice Recchia, Dr. Maurie Hillson, Dr. William Graves, and Sister Bernarda. The format for this afternoon will be very informal. I will try to keep the fur flying, if possible, and we hope that you will make ready use of the microphones that are on the floor. I realize that some times it's a long walk and perhaps a little bit embarrassing to stand in front of a group, but we hope that this afternoon that we will get down to some of the real questions that you have. Your program reads that there would be a panel discussion followed by a question period. Rather than operating that way, I would prefer if at any time that you want to interject, you just stand up, and we will entertain your question at that time. So if you are ready, the panel is ready, and I guess we will get underway.

Now, first of all, I'll just throw out a comment. Anybody who wants to handle it may do so. The word nongraded has been used frequently for the past number of days, and after listening to a number of the explanations of the concept of nongradedness, we might very well ask the question: What is the difference between a nongraded school and a school that has a whole lot of grades? In other words, what have you done when you nongrade other than adding a lot of levels? Does anybody want to jump in on this one?
Dr. Hillson: Yes, Just let me restate that many people ask: When you go into states or levels or unit programs where you are developing precise levels of learning, and the like, what is the difference between that and the graded program? Aren't you just creating so many small grades which drives the curriculum and organization to a lower level? And the answer is, of course, if you develop a series of hurdles, you do just that. The difference between levels and grades is that the grades are thought to be normative periods of time created as items that people have to go through or achieve and are based upon the rate factor only of 180 days or else. Levels are really the recasting of the curriculum into a continuous series of

steps of learning from simple to complex, and the purpose of creating levels of learning is to create a program whereby you can put the child in at an appropriate point of intervention and then you can bring him successfully through a sequence to master it at his own rate while you have the opportunity to modify the curriculum that you are feeding him. Now the levels are not to be slavishly adhered to, as are our grades. I always remember a cute story. When I was doing a project in a slum, I went to see one teacher, as I did every Monday, and asked questions about what her problems were. She lived in the slum now and taught there and watched the nature of the program change under her very eyes from a very middle class affluent program in which kids always achieved to a mixed group of different youngsters where nobody achieved. And she said to me: "I would have no problems," Dr. Hillson, "if only the thirty could keep up to the three who can do it." She was teaching a grade—if 30 could keep up to the three who were doing it. Now she had no conception at all that applying the normative standard willy nilly to 33 people was the most irrational of acts that one could imagine. Levels are actually units of work that are continuous. They are not to be slavishly adhered to. Levels are the things that a teacher should either stay with or depart from, as good teaching practice dictates. These are the outline, as it were, or the curriculum as it is operationally defined. They indicate to you what beginning readiness is and what mastery is. These are the items which suggest ways of teaching. These are the things that carry the skills and conceptual development content to help you bring the youngster to a meaningful learning situation. For that reason, they are not like grades which are out here, and provide normative standards against which the youngster should be measured in a given period of time. They are, rather, a curriculum statement of progress, and the questions that you ask when you use levels instead of grades is not whether the child is ready for something but what indeed is the child ready for; and then you place him appropriately. You teach him what he is ready for and when he is ready for it.

Professor Recchia: I would like to just say this to reinforce what Dr. Hillson said. We all agreed that doing away with grades does not necessarily guarantee a good educational program. We do know, however, that the levels approach can open the door to new instructional ideas and possibilities. To plan the kind of sequential learning that Dr. Hillson was talking about, we need to diagnose where the kid is and what it is we intend to do with him to move him from that point on. Pupils can be shifted to new levels and

classrooms with a minimum of disruption, and children new to the school or who have been absent due to illness can be readily picked up at points where they left off. The use of levels then instead of grades eliminates the need for failing or accelerating children who are not within the academic norm or range of the typical graded class.

Dr. Graves: I think that when one asked the question: "What's the difference between going to levels, going nongraded, or staying graded?", one needs to backtrack one more step really and ask the big question: "What is it that we are trying to accomplish?" I would like to suggest that when we talk about levels, we are just talking about reducing the curriculum into manageable units that make it easier to hold a child over here and hold a level over here and say: "Does he resemble anything like this level over here or should I go to another one, and this makes it a little easier to place the child in a curriculum and hopefully devise some more appropriate experience for him. But, I think that looking at the long range is what you have to do first. Is it our aim to see how many levels we can create? In fact, all learning is not sequential, you know. It really doesn't make too much difference when you do some things, and I am going to offer the proposition that the aim of education is to assist youngsters in arriving at the huge upper point of the funnel as quickly as we can, where he may then have an opportunity to have a variety of experiences which are not in fact sequential, but at the very early stages they probably are an aid in helping us to determine whether or not a child is making some progress in some of these rather basic communication skills. So when we talk nongradedness, all we're doing is hunting for an alternative or a better way to look at small segments of the curriculum and match the child to them, so that his experience at any given time in mathematics, in reading, or in any other subject may be realistic and challenging for him. At the beginning stages it is vitally important that he achieve some success. Therefore, we must be more precise in knowing where he stands at any given moment in his development during the early years. Hopefully, the aim that I would propose is that we can get him out of all these levels just as quickly as possible and put him into an environmental situation where he doesn't have to be worried about the sequence of what comes next, where he can thoroughly engage in some problem solving situations.

Sister Bernarda: Just another point of emphasis here. I would like to look at the role of the teacher through all of this. Certainly the child is the important thing, but I think all of this ungraded pro-

gress, whatever you want to call it, frees the teacher to do the things she knows she ought to do and should do to help a particular youngster, and I submit that in the kind of system that we are caught in now, we are not free to do this. To me it is one of the most wonderful thinks that can happen to a teacher to be in the situation where she is free to use her judgment to do all she can for the children in her classroom.

Question: Is the term nongrading misleading?

Dr. Eulie: The other day someone said that nongradedness is a negative term, and I would prefer to use the term continuous progress. Now we have to say continuous progress towards what, and I submit that before you begin to nongrade you had better adopt a philosophy, and I feel that your philosophy should be continuous progress toward the end, first, of the development of the individual child; second, toward the mastery of basic ideas and skills, and third, toward meeting the needs of your society. Now as a social studies educator, I feel that your learning experience and your levels of learning should be in accordance with continuous progress toward these three goals.

Mr. Currie: Over lunch period a teacher was on this question that nongradedness is simply a negative concept. All you are doing is doing away with something. I find very little within that statement itself to justify it. And when I think a little bit further, I think of statements such as the removal of grades means the removal of failure, and then this thought comes to mind: Does the removal of grades and the removal of the concept of failure also create the situation whereby the concept of success is also removed.

Dr. Hillson: My only comment is that people who talk about a nongraded school and feel that it is just the removal of grades are probably in a realm of thinking where they have not developed an adequate concept of nongradedness. The original concept that the nongraded school was merely an organizational revision was an unfortunate one. Nongrading was not only a real organization; it was a much more in depth kind of approach that required a whole new concept of curriculum and a whole new concept of what you are going to do with the child. Now I would make the contention very forcefully that when I talk, I use all of the terminology: I say nongraded collaboratively planned and taught continuous progress oriented school. You've heard me say this all morning. My contention is that nongrading is just simply an antiseptic term which tell you the structures you want to eliminate, and that is not the move-

ment that I am talking about. I'm talking about continuous progress collaboratively planned education. It's not right to call a school a nongraded school that gives standardized tests to all the kids, then puts the slow ones in one group, the average ones in another, and the fast ones in another. That is not nongraded education but simply the redistribution of kids on the basis of achievement. So I believe that in order to broaden the base for nongrading, you have to do all these other things: you have to plan what ought to be taught; you have to sequence that which you feel is essential; you have to develop programs that are randomly offered for the children so that you don't get caught and make sequence the only thing. You have to develop different kinds of approaches for the learners style; you have to think of another way of regulating time; you have to think of another way of deploying teachers. These are much more heady concepts, and the reason why nongraded education isn't moving at a fast pace is because the profession does not want to embrace those heavy concepts that required a lot more work. That's the problem.

Dr. Graves: I would like to offer that you have a cluster of items that need to lend themselves to a more single definitive notion. What I'm suggesting is that maybe we might coin a phrase whereby you take all of the good things that you mentioned and call that an "open school" and call everything else a "closed school."

Dr. Hillson: I would like to make a statement on levels because the problems of levels deserves further discussion. John Tewkesbury wrote a book called **Nongrading the Elementary School** in 1967, and in that book, he talks about six criticisms that have been put against the levels plans. I think that these are inherent in the question. It turns out to be the miniscule grades that teachers feel that every kid must go through, and therefore does not take into consideration intuitive or random learning. You can have a levels plan which is nothing more than a basic reading program, etc. An analysis of these criticisms suggests that some are based on misunderstanding while others involve problems which can probably be solved. The levels plan seems to be sufficiently flexible to be modified by the staff in a school system to satisfy local needs. For this reason the plan has been found to be a workable one in many nongraded schools. So the warning to you in the schools system is that you can satisfy your local needs by a modification of the existing programs that are relative for you, but you should not get hemmed in by the six criticisms, such as the miniscule grades, and the like that people fall prey to because they misunderstand or misinterpret the concept of nongradedness.

Question: What about the last part of your question which deals with the lack of success problem?

Dr. Hillson: Really, has anyone ever been known to become a great success because he's had a constant and unfair series of failures. Ninety per cent of all the failures in our public school falls upon 25% or 30% of the population. That means there is an unreasonable balance of success and failure. My feeling is that success means the abiiity for youngsters to achieve in an appropriate situation that is meaningful for them and which they have a proper opportunity to achieve. If you create a school system, an open school system, in which you develop the ethos or the climate in which kids have an opportunity to succeed and then after all of that, for some untoward reason they refuse to succeed—and there are some people who do this—then the answer is that they are a failure, and you have not made them a failure. What we are doing now in our school system is developing tracking systems and streaming systems that already indicates the child as a failure. In Washington, D. C. they have a three-track system in which of the first twelve thousand kids who went into it eight thousand were maltracked. So my feeling is that we have to have a redefinition of this competitive concept of success and failure. In the United States we wrote The Sherman Anti-Trust Act. And the reason why we wrote this was so that all the great rugged individualists wouldn't get together and co-operate so that the little guys couldn't make it. It seems to me that this kind of force should be interesting to you as teachers; so I believe in a completely success orientated school. I believe that there should never be a time within the teachers activity that she isn't seeking for 100% success, as I do as a college teacher. When I send out my assignment sheet, I simply say this course is a non-curved course. Everybody is a potential A, and then I develop the individual contracts. Those of my students who don't want to participate in that kind of activity have refused the opportunity to get the A. But the success orientation is there. So you see, you have to redefine what success and failure are.

Dr. Graves: Of course, it depends on how you judge success. What is your criteria? Is it the group; is it the norm; or is it the individual? And I think eventually you arrive at a situation where you have to be psychologically orientated and take some learnings from positive reinforcements, and also realize that the human being is a pretty elastic sort of thing. He can accommodate some failure, but the extent of failure which he can accommodate is directly proportion to the amount of success he has achieved. There is room for

both, and I don't frankly think that the "open school" is going to damage the opportunities for success, but I hate to think of success as being solely the opportunity to make someone look bad. I think it can be at times confined to making oneself look good but not at the expense of some others.

Mr. Currie: Let's get at the question of evaluation because we are dealing with a point of measurement. Aren't we making a rather dangerous assumption when we talk about the "open school" and using standardized achievement tests? Has anyone any comment on this?

Dr. Hillson: The only reason we used them in the past was simply to prove that in nongraded continuous progress education, even ham strung by the same levels or the same inept measurements, youngsters will do better on standardized tests than they have done in the other situations. When nongraded youngsters are placed in programs against their graded counterparts, in all measures of academic achievement on a standard battery, the nongraded youngsters do significantly better.

Even by our measures or by standardized tests they do better, but I think that it's about time that we were up to revising these tests. Two books have been written on testing that have impressed me. They were written several years ago, and I think we are going to get more like them. One is called **The Tyranny of Testing.** I am not a Canadian, but I have to say this because I've been all the way across Canada and back. Canadians are very test prone, and I think that this as a sole measurement of educational progress is really a very disastrous thing. Now I think standardized tests need a lot of revisions, and I think that the whole question of standardized tests is opened up for a new whole series of discussion, and I'm hopeful that over the next several years we will develop instruments for measurement that are superior to the current ones. For instance, we dropped the I Q in three major cities of our country. Los Angeles has dropped it; Washington has dropped it, and New York has dropped it. And we instituted instead a series of items called "Another way of looking at children". It was developed by the Princeton Educational Testing Service. It has preformance kinds of activities which are hopefully culture free. Teachers come to me and say, "I owe this kid ten years of apology or I owe this group of people five years of apology", because for five years they have been applying what the test makers said in normative

ways that were totally irrelevant to the population with which they were working. Now I have one more statement that I want to make about standardized tests, and I'm done. If you are going to use them, you should not use them as full batteries, because, for the most part, you will find them so long that they are nonstandard to start with. And there isn't a teacher among you who is actually using the precise stop watch and giving the exact directions and making them really standard according to the normative procedures. That's the first. The second thing is if you want to find out what is wrong with the kid, be a collector. Look at those areas that have discreet items that tell you what's wrong with the kid. You have known kids that made a grade six level on the standardized test, and you give him a grade six book and he can't read a thing, right? You've all seen that happen and the question is why. So I would make one statement: Always doubt the instrument; never doubt the child. And then we'll be true to our professional calling.

Dr. Graves: I'd like to add a thought to this. For instance, how do you measure persistence? How do you measure creativity? Now when you start asking those kinds of questions you're immediately going to have to go back to this business that Dr. Joe Eulie here was suggesting that we examine objectives. Well, I say, let the evaluation instrument fit the objectives of the exercise. If the exercise is to see how high you can jump, well then let us use a measurement that has something to do with height. If it has something to do with how long you can stay under water, well let us use something that measures air bubbles. You see, you have to use different devices for different kinds of performances that you wish to achieve, and in this respect there are some excellent guidelines, and I would recommend them to all of you who have not had an opportunity to investigate them. They are found in both of Bloom's **Taxanomies** which have been brought out in the last 10 or 12 years—one in the cognitive area; the other in the affective area, and I suspect that there will be some others brought out too. And this, I think, Mr. Moderator, brings us to another question: What are some of the preparations that might be useful for faculties looking ahead to some kind of an open program that they would like to mount. I would say that number one on the list is a careful investigation of the various kinds of measures of performance in all of the areas of the curriculum in which we would hopefully see the youngster engage in and give us an opportunity to measure from A to Z, from persistence to creativity, and all the things in between.

Professor Recchia: I think that perhaps one of the things that may be tormenting some of the folks in regard to testing is that we are not advocating what Dr. Hillson often refers to as soft pedogogy or lessening of academic rigor. This means that the teacher must be more diagnostic. What is it, as you indicated, that we want to measure? How are we going to go about doing this? And this means then that the teacher must come up with some evaluative instruments of her own as we tried to indicate yesterday and the day before in social studies. For example, if you are trying to test for geographic understanding, if you're trying to test for the historical understanding, you do not have to use standardized or paper and pencil tests to do this.

Mr. Currie: You know, Gentleman, perhaps you've explained why teachers are sometimes a little conservative about making changes. What you're saying now is what these people have been saying for many years, but what they've been hearing from experts for many, many years has been a hard sell on standardized tests, etc. Now we're debunking this. Perhaps some of our teachers are feeling that a lot of other things that are being said are going to be debunked in a few years too.

Dr. Hillson: The comment that we have to make on that is simply that you know you are directly reflecting schools and in your profession, you know the particular persuasion that presently holds sway in your country or in your programs. The testing business didn't start to receive a critical look until some of the more perceptive people started to jump all over it. But the point that you have to make is certainly they are bound to make changes, but what we have to do as educators is to start to look at the hard data, and I think we ought to feel like we are going through a program of self-flagillation. That is dangerous, and I don't feel that teachers have a determination to change. Nor do I think that everything they've done previously is wrong. How many of you would go out now and buy a 1937 Plymouth? How many of you would? If you wanted to travel you would be more likely to buy a 1967 or 1969 car. But I'll tell you, we are operating in our schools with vehicles that were established in 1849 and hoping that they are going to carry the traffic of the intellects of our schools today. This is an irrational point of view.

Mr. Currie: The point I want to make is that teachers will question and question heavily, and thank heavens that they will. They will accept change; there is no question about that; they will

question very, very sincerely, and I'm glad that they do. Sister Bernarda was going to do a song and dance routine from 2:30 to 3, but we thought perhaps that we might close a little early, and she seems to be getting off a little easy; so I'm going to direct a question to her for a change. It is a very general question to zero in on the point of the inservice education of teachers that is necessary when we are starting a program of the "open school."

Sister Bernarda: I don't have to fight to answer this one. Certainly, institutes of this kind are the beginning of a preparation for teachers. I always feel that a teacher has to go back to the books... and I certainly encourage faculties to do this, particularly to review and restudy again child growth and development principles. Dr. Hillson mentioned before that so many new things are coming to light that have to change our thinking. I think that in the past few years so much has been discovered on the very basic physical development of the central nervous system contributing to learning and that significant major revisions in approaches to learning are called for in the light of this new knowledge.

You have to look at the neurological development of your children. Just remedying the symptoms does not get at the causes of their difficulties. Most of us are not even aware we are teaching in the very same way as we did 15 years before when these bits of new knowledge came to us. I think faculties have to be re-educated to realize that the great store of knowledge that they have to give cannot be received by some of these youngsters until their receiving sets are put in order. In fact, I wish we could get away from even talking about what kind of a system to have—graded or nongraded —and just be teachers dedicated to the instruction of the children in our classes. I'd like to get in something here about this lack of achievement which some people falsely tend to associate with nongrading. I think that it is so false because achievement is the one thing that continuous progress is seeking. I've mentioned to groups that have been in my classes that we never even know how good some youngsters are because we've never challenged them. We don't even know how far they can go. We are depriving these children of achievement and certainly of success. These realizations demand a humility from each and every one of us. We do not know all the answers because we're not even asking the questions.

Dr. Eulie: I would like to elaborate on something that Sister Bernarda said. Perhaps the finest teachers I've ever met are teachers who see children before them and not their subject matter. Now

I'd like to tie this in with evaluation. Perhaps the most precious commodity a teacher can have is professional judgment. We are continually asked to make decisions with regard to educational evaluation, and I feel that far too often evaluation has played a narrow role in education because our objectives have been narrow. I think we have to establish worthy objectives; we have to establish more varied diagnostic techniques, and then we have to establish some kinds of devices or guidelines which will enable us to improve our professional judgment. We must learn to see the instruments which we construct are means of helping us to improve our professional judgment. And these youngsters who come under our care must continually be evaluated. Let us not forget that instruments do not make the judgments; it is the teachers who make the jugments.

Question: At the opening session of this institute we heard our Minister of Education refer to a quotation from Shakespeare "A Rose by Any Other Name", and I have been wondering whether or not it might be possible that this word non-graded seems to lead people up a blind alley. To me it seems that many people in the past have been considering nongradeness simply as an administrative device. If the nomenclature is not leading them up a blind alley, it seems to me that perhaps it is blinding us to the larger aims of education. I was wondering if somebody would like to make a suggestion as to a substitute idea or label for us to take away from this Institute.

Dr. Hillson: My problem has been to try and determine for myself a different terminology. In the school system I am working with, we are eliminating the term nongraded completely from our discussions, and we're talking about school systems which are continuous progress orientated schools. We do workshops on such things as the individualization of instruction. I really don't know if you could get a single word that would imply our purpose better than the one in the current usage.

Sister Bernarda: Well I think there is a conflict here between using a model that everyone would agree is a good model, and by the time you got that agreement the model would be so small it wouldn't mean anything. On the other hand, what I actually think is going to happen is you are going to develop your own model, and it is going to be the Kingfish Plan, the Sydney Plan, or the Antigonish Plan, and this is going to be your development. And I think it has to be that way, because as long as I've been able to view education from any distance in schools as it operates, I have never seen two

schools operate the same kind of a plan the same way. Now perhaps all we can do is identify what for us seems to be relevant aims, as every generation has done before and probably every generation is going to continue to do, and from these aims we will get our own direction. There are relevant aims, and I think over the ages we've discovered that some of our administrative devices have subverted some of the most relevant aims for youngsters, such as that of giving him a curriculum with which we can cope with some degree of predictive success. I think the important thing is identifying these aims; then perhaps it doesn't really matter if we all have a common name. In fact, it's nice to be able to have our own names.

Dr. Eulie: If I understand your question correctly, what I think you are getting at is this: The nongraded school is but a means to an end, and, as I see it, the end result is the continuous progress of each child at his own pace towards desirable goals, and you want to institute a nongraded school in order to be able to individualize instruction so as to accomplish this end. So nongrading is the means to the end and not really the end in itself.

Question: We are all going to leave this Institute and we are going back to our schools with fresh ideas. But how should we proceed to study the implementation of the phenomena we have been discussing for the last three days?

Professor Recchia: In Texas model schools were developed. These model schools then became the disseminators of information, techniques, and so on. This same procedure was very successful in schools in Southeast Asia. We set up several model schools in each of the provinces, and from these model schools the information was disseminated. That is one suggestion.

Dr. Hillson: My approach has been the establishment of contractual obligations with school systems. Presently I'm working here in Canada with one school system in St. Catharines, Ontario. I will fly there on Sunday, and for five days we will work on their program. I've been there twice now and have had two two-day workshops, and now we will develop a model separate school district which will serve as a prototype for people who can come and see these models. John Goodlad made the point in an article that he wrote recently that the reason why schools aren't readily adapting to this new kind of program is because few see good models, and a movie is an insufficient model. I'm for the development of contractual obligations where nearby universities or the provincial government provide resource people who will serve as consultants to your

school districts. 11 years ago when I wanted to develop a lab school based on a nongraded program in Cortland, New York, I was refused. I then took the program off the campus and started a very limited model in Vestal, New York. And what I did was to offer my services to them and to make myself available to help them develop a program because I felt that was their need. Now it seems to me that we have to disseminate the information much more rapidly, and this is the only way you are going to get things done. You people right now at this moment in time, after three days of a conference on continuous progress, have more import and more knowledge than most people who started programs on their own. The only way to get started is to go back to your ranches and develop with your principal the year-long study that you want and indicate the need for resources, raise the specific questions that you feel that only consultants from the outside can handle, and try to create the opportunity for bringing these people in. They are available closer in Canada than you think. I have a list of places where they are doing these developing programs in Ontario. Some people have sent out a worksheet and declared themselves as one of the better school. I believe that there are people available within the context of Canadian Education. We met with your officials from the provincial government last night, and they are very, very ready to help you innovate.

Dr. Eulie: I think that besides getting these resource people, you ought to visit existing nongraded schools. It is also important for you to come up with your own philosophy. And then, when you make your first step, be prepared to make continual changes. Nongrading is not for the timid. It requires bold innovation.

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Prepared by

Dr. Maurie Hillson
Rutgers — The State University of New Jersey
The Graduate School of Education

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